

PSYCHOLOGICAL ABSTRACTS

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GENERAL (incl. Statistics)

3900. [Anon.] **Profesorul G. W. Allport.** (Professor G. W. Allport.) *Rev. Psihol.*, 1938, 1, 395-400.—An editorial presentation of the work of Allport to Rumanian psychologists. There are two ways of thinking in the contemporary psychology of personality: one is more quantitative and analytic, while the other is more qualitative and synthetic. The first dominates more in America, while the other is predominant in Europe and especially in Germany. As an American psychologist with a keen understanding of European psychologists Allport attempts a synthesis between these two fundamental conceptions. He tries to understand personality as a configure whole, using both quantitative and qualitative methods. The qualitative method, however, is used in a specific way; in opposition to German psychologists who incline to consider it more an artistic talent, he uses it in a scientific way. Although influenced by Spranger, Klages, and other German psychologists, Allport still remains American in the attempt to establish the method proposed by these thinkers on a scientific basis. These considerations are then illustrated in the work of Allport, of which an analysis follows.—*N. Marginean* (Cluj, Rumania).

3901. [Anon.] **Profesorul H. Piéron.** (Professor H. Piéron.) *Rev. Psihol.*, 1939, 2, 1-4.—An editorial paper presenting to Rumanian psychologists Piéron's research work and its place in contemporary psychology. There are analyzed his researches concerning memory, thought and brain, physiology of sleep, etc., as well as his concept of a biological psychology. He is always far from any "Weltanschauung," and his theory derives from facts experimentally and statistically controlled. In this way he fits well into the tradition of French psychologists inaugurated by Ribot, Binet, and Janet, whose follower Piéron is.—*N. Marginean* (Cluj, Rumania).

3902. [Anon.] **Profesorul L. L. Thurstone.** (Professor L. L. Thurstone.) *Rev. Psihol.*, 1938, 1, 279-283.—An editorial paper introducing the work of Thurstone to Rumanian psychologists.—*N. Marginean* (Cluj, Rumania).

3903. **Baruk, H.** *Quelques réflexions sur la personnalité d'Esquirol.* (Reflections on the personality of Esquirol.) *Evolut. psychiat.*, 1939, No. 1, 3-11.—The author gives a historical survey of the main periods in the life of this French alienist (1772-1840).—*G. Goldman* (Sorbonne).

3904. **Bentley, A. F.** *Sights-seen as materials of knowledge.* *J. Phil.*, 1939, 36, 169-181.—When we

have specified sights-seen, sounds-heard, etc., we have exhaustively specified all that the word "consciousness" covers. Both the "sight" and the "seeing" must be emphasized equally. The localization of such phenomena can be neither in the observing organism nor in the object, but must be in the whole situation. These sights-seen must be adopted as materials of knowledge, and this adoption will be no obstacle to psychology or to the other sciences.—*J. G. Miller* (Harvard).

3905. **Bier, A.** *Die Seele.* (The mind.) Berlin: J. F. Lehmanns Verl., 1939. Pp. 172. RM. 7.40.

3906. **Cârstoiu, S.** *Observatiuni la orice anchetă psihologică.* (Observations concerning psychological questionnaires.) *J. Psihoteh.*, 1938, 2, 97-103.—General considerations aiming to establish the best conditions of applying questionnaires.—*N. Marginean* (Cluj, Rumania).

3907. **Curcaneanu, M.** *Activitatea Laboratorului de psihologie experimentală al Universității din București pe anul 1938.* (The activity of the Psychological Laboratory of the University of Bucharest during 1938.) *Anal. Psihol.*, 1938, 5, 341-346.—The activity is concentrated upon the individuality of school boys and girls, upon the methods of tests, which lead to the knowledge of this individuality, as well as upon the problem of vocational guidance. The laboratory has arranged various research groups, which travel in order to collect experimental data concerning Rumanian psychological realities.—*N. Marginean* (Cluj, Rumania).

3908. **Dilthey, W.** *Gesammelte Schriften.* Bd 6. (Collected works. Vol. 6.) Leipzig, Berlin: Teubner, 1938. Pp. 324. RM. 10.—

3909. **DuBois, P.** *Formulas and tables for rank correlation.* *Psychol. Rec.*, 1939, 3, 46-56.—A consideration of various rank-correlation formulae in terms of appropriateness to different desired degrees of exactness and to other factors determining the choice of methods.—*P. S. de Q. Cabot* (Simmons).

3910. **Dunlap, J. W.** *Workbook in statistical method, with special reference to the social sciences.* New York: Prentice-Hall, 1939. Pp. x + 145. \$1.75.—This workbook is designed for use with any of the modern texts in statistics. It provides for experience in computing the various statistics, and abstracts of problems and sets of tables derived from data are given for practice in drawing conclusions. Completion sentences are used throughout the book as a device to get the student to think through the material presented. Topics covered in the 15 chapters include: statistical symbols, classification

of data, graphs, measures of central tendency and of variability, the normal probability curve, standard deviation of differences and sums, sampling, correlation, application of the correlation coefficient to tests, the regression equation, partial and multiple correlation, chi square, nonlinear relationship, and other measures of relationship.—*J. McV. Hunt* (Brown).

3911. **Ernsthausen, W.** *Absoluteichung von Mikrophonen.* (The absolute adjustment of microphones.) *Akust. Z.*, 1939, 4, 13-20.—A condensing microphone was adjusted according to four different methods. The difficulties and errors involved are discussed and the sensitivity of an absolutely adjusted microphone calculated.—*P. L. Krieger* (Leipzig).

3912. **Essen, J. van.** *De psychologie in het jaar 1938.* (Psychology in the year 1938.) *Ned. Tijdschr. Psychol.*, 1939, 6, 572-581.—A significant new development in animal psychology is the introduction of subjectivity into the interpretation of experimental results. Emphasis is placed on the relationship between the animal and the experimenter, and the form in which the animal's reaction occurs is described in acceptable psychological terms. This approach is likely to lead to better results than behavioristic studies, which consider such reactions in a purely quantitative light.—*H. Beaumont* (Kentucky).

3913. **Felix, R.** *De la o psihologie metafizica spre o psihologie a totalitatii.* (From a metaphysical psychology to a psychology of totality.) *Anal. Psihol.*, 1938, 5, 34-48.—Psychology has modeled itself on the sciences of nature, imitating the methods and the principles of these sciences; consequently it became a study of physical atoms, whose combinations and associations give the mind. In addition to these ideas modern psychologists introduced the experimental method. Associationistic explanation of psychological phenomena, however, is too little adapted to the nature of psychological phenomena. Contemporary psychology has introduced the idea of configuration and totality, which considers the human mind as a unity. The study is completed by a review of the contemporary schools in psychology and their various contributions.—*N. Marginean* (Cluj, Rumania).

3914. **Gaupp, R. Emil Kraepelin.** *Der Mann und sein Werk in ihrer Bedeutung für die psychiatrische Forschung der Gegenwart.* (Emil Kraepelin. The man and his work in its significance for the psychiatric investigation of the present.) *Z. ges. Neurol. Psychiat.*, 1939, 165. Pp. 29.

3915. **George, W. D.** *Production of accurate one-second time intervals.* *Bur. Stand. J. Res., Wash.*, 1938, 21, 367-373.—"This paper describes the technique wherewith a highly accurate frequency of 1 cycle per second is obtained for broadcasting from the Bureau's radio station WWV. Multivibrators are used in obtaining lower frequencies from a radio-frequency standard. Observations are given concerning the nature of short-time instabilities occur-

ring in controlled multivibrators. The measuring technique is described whereby the accuracy between successive time intervals or cycles is checked to better than one part in a million. It is pointed out that the arrangement can be used for supplying extremely short pulses accurately spaced in time." A photograph and a schematic diagram of the equipment are included in the report.—*G. R. Thornton* (Nebraska).

3916. **Georgiev, F.** [Opposing behaviorism and reactology. Concerning some works of Borovski and Kornilov in psychology.] *Pod Znam. Markisma*, 1937, 163-169.—The American behaviorism of Watson and the near-behaviorism of Thorndike are psychological outgrowths of philosophical pragmatism with an admixture of mechanism and biologism. Thorndike takes utility as the only criterion of truth, thus denying its objectivity. Human personality is considered by Watson merely a to-be-analyzed piece of protoplasm, ignoring the productive and class relations of society. Watson identifies speech with thought, human intellect with mazesolving in rats, and is thus a crude naïve mechanist. Borovski, introducing behaviorism in the Soviet Union, has not sufficiently cleansed it of its defects, and his system is still un-Marxian. Kornilov's reactology is a combination of behaviorism and Wundtianism. He considers intellect as nothing but a volitional process that has not yet been transformed into action. He further states that the more intense the central processes the less the action in the periphery, and thus advocates an anti-Marxian view that physical work correlates negatively with intellect.—*G. H. S. Razran* (Columbia).

3917. **Heidbreder, E.** *William McDougall and social psychology.* *J. abnorm. soc. Psychol.*, 1939, 34, 150-160.—The barest account of his career could hardly avoid stating that the basic theory of his book *Social Psychology* not only became a major issue in psychology, but definitely affected the treatment the topic has received ever since. His influence is discernible in some of the movements characteristic of the social psychology of the present—in the emphasis on the importance of conation and motivation; in the increasing interest in larger formations like sentiments, attitudes, and whole personalities; and in the deliberate search for dynamic explanations. To many of his fellow psychologists, McDougall stood outside the pale of scientific respectability. He became a symbol of what American psychology has most heartily set itself against. In social psychology and in psychology in general, the problems he pushed to the fore do not today demand an alignment for or against his position. But the decisiveness with which he treated them, and the very opposition he aroused, have led others to attack them with fresh concepts. To solve the problems he raised was not McDougall's role in psychology. His achievement was to bring them to light in a manner so disturbing as to force them upon the attention of a generation of psychologists trained to ignore them.—*C. H. Johnson* (Portland, Ore.).

3918. **Holmes, J. Q. William McDougall and abnormal psychology.** *J. abnorm. soc. Psychol.*, 1939, 34, 161-165.—In William McDougall psychology had a staunch systematist able to integrate the abnormal and the normal within a single conceptual whole. He was not greatly interested in the classification of mental diseases, except as he found it necessary to consider "functional" and "organic" conditions in relation to his own beliefs concerning body and mind. He was, however, intensely interested in the processes of disorder. With respect to psychoanalysis he contributed far more than he received. His endorsement and defense undoubtedly protected psychoanalytic doctrine against dangerous assaults from psychologists who would have been entirely unsympathetic had it not been for McDougall's efforts to point out valid contributions. Among his most important contributions to descriptive abnormal psychology are his pictures of regression. His descriptions are of something which is very real, open to any observer, and susceptible to laboratory study. He gave little attention to mental deficiency, to intelligence abnormalities, or to intelligence tests. His interest in psychical research and his views on clairvoyance and telepathy considerably affected his doctrine of the abnormal.—*C. H. Johnson* (Portland, Ore.).

3919. **Iriarte, M. de. Dr. Juan Huarte de San Juan und sein "Examen de Ingenios."** (Dr. Juan Huarte de San Juan and his "Examen de Ingenios.") *Span. Forsch. GörrGes.*, 1938, 4, 1-208.—Subtitle: A contribution to the history of differential psychology. The author presents in biographical detail a picture of Huarte de San Juan and discusses his work, the "Examen," which was published in 1575. The thesis of the book, that every capacity of man must be made the object of study in the light of "nature," is presented, and its influence traced upon psychological thought in Spain and the Continent in general.—*G. F. J. Lehner* (Vermont).

3920. **Jensen, H. E. William McDougall's doctrine of social psychology.** *J. soc. Phil.*, 1939, 4, 206-219.—McDougall's position as a creative pioneer in social psychology is assured. In his opinion the theory of the sentiments furnished the key to his system and was its most distinctive contribution. He rejected as inadequate W. I. Thomas's theory of social attitudes, the behaviorists' principle of the conditioned reflex, and theories stressing habit instead of attitude. His theory began with purposive striving. He was no crude instinctivist. He accepted teleology and vitalism, but used these terms in a restricted sense. Society was a sort of psychological structure. His system involved no adequate theory of cultural dynamics. Differences in group culture were chiefly due to differences of physical environment and to spontaneous variations of racial stocks. He recognized that social psychology must rest on a sound theory of human nature, but he failed to recognize the causal efficacy of purely cultural events. However, he recently became interested in the problem of social values.—*W. A. Vareel* (Kansas).

3921. **Jung, C. G., Curtius, O., & Meier, C. A. Prof. Dr. Jur. et Med. M. H. Göring zum 60. Geburtstag.** (To Prof. M. H. Göring, Doctor of Laws and Medicine, on his 60th birthday.) *Zbl. Psychother.*, 1939, 11, 193-194.—A biographical sketch and tribute to the head of the Deutsche Institut für Psychologische Forschung und Psychotherapie, accompanied by a full-page portrait.—*M. E. Morse* (Baltimore).

3922. **Jung, R. Ein Apparat zur mehrfachen Registrierung von Funktionen des animalen und vegetativen Nervensystems (Elektroencephalogramm, Muskelaktionsströme, Elektrokardiogramm, galvanischer Hautreflex, Plethysmogramm und Atmung).** (An apparatus for multiple registration of functions of the somatic and vegetative nervous system—electro-encephalogram, muscle action currents, electrocardiogram, galvanic skin reflex, plethysmogram, and respiration.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 618-619.—Description.—*P. L. Krieger* (Leipzig).

3923. **Kingsbury, F. A., & Carr, H. A. The concept of directional dispositions.** *Psychol. Rev.*, 1939, 46, 199-225.—The third of a series of articles relating the new categories and concepts of differential, applied, social, genetic, and abnormal psychology to the standard types of mental activity and evaluating them for psychology. Previous articles have treated of "abilities" and "traits." The present article deals with "directional dispositions," which include attitudes, opinions, beliefs, desires, interests, purposes, wants, drives, and the like. The psychological fact of selectivity in respect to objects and goals is explainable primarily in terms of constitutional conditions, inferred from characteristic forms of behavior, which are denoted dispositions, and are differentiated and named in terms of the objects and goals with reference to which they are directed. Directional dispositions are thus explanatory concepts, and are in general use for describing, explaining, and predicting the reactive nature of individuals. They are important for systematic as well as for applied psychology. Since the nomenclature is of popular origin, and hence full of ambiguities and contradictions, systematic psychology should undertake to develop a more appropriate terminology for dealing with them.—*A. G. Bills* (Cincinnati).

3924. **Luck, J. M., & Hall, V. E. [Eds.] Annual review of physiology.** Stanford University, Calif.: Annual Reviews, Inc. Vol. 1, 1939. \$5.00 per volume of 705 pages.—*W. S. Hunter* (Brown).

3925. **Muster, D. Asupra unei metode pentru calculul coeficientului de corelatie.** (On a method of calculating the correlation coefficient.) *J. Psihoteh.*, 1938, 2, 169-172.—*R. R. Willoughby* (Brown).

3926. **O'Hara, F. J. Psychology and the nurse.** Philadelphia: Saunders, 1939. Pp. 252. \$1.75.—This book is designed as an elementary textbook for the use of students in schools of nursing. Chapter headings are as follows: Psychology; The Mind and the Reacting Mechanism; Effect of Sensation on the

Mind; Imagination and Dreams; Memory; Feelings and Emotions; Traits and Tendencies; Conflicts and Adjustments; The Art of Thinking; Attention and the Laws of Learning; Intelligence Tests and Measurements; Habit Formation; Temperament, Personality and Character; Mental Disorders. Quotations from the summaries following each chapter indicate the general point of view: "Psychology is the study of the mind and its operations, and not merely a study of behavior." "The mind which is the source of mental activity is the principle and substantial form of human action." "Perception is the mental function by which stimuli are interpreted." "The synapses of the nervous system are made permanent by the activity of repeated acts, and tend to react in the same way to similar stimuli." "The four kinds of temperaments are sanguine, choleric, melancholic and phlegmatic."—*M. Keller* (Butler Hospital).

3927. Ohtski, K. *Materielle Ökonomie und Seelenökonomie.* (Material economy and psychic economy.) *Z. Psychoanal., Tokyo*, 1939, 7, Nos. 3-4.

3928. Orbelli, L. A. [Academician Ivan Petrovich Pavlov.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 199-214.—An account of the life and work of Pavlov by one of his closest students, who worked with him from 1900 to his death, February 27, 1936.—*G. H. S. Razran* (Columbia).

3929. Piéron, H. *La psychologie, science biologique.* (Psychology as a biological science.) *Rev. Psihol.*, 1939, 2, 5-11.—In opposition to the old atomistic and associationistic psychology, contemporary psychology aims to study psychological phenomena as Piéron considers the psychophysiological organism, considered as a complicated but unitary structure of co-ordinated functions.—*N. Marginean* (Cluj, Rumania).

3930. Radulescu-Motru, R. *Timp și destin.* (Time and fate.) *Anal. Psihol.*, 1938, 5, 1-14.—The notion of fate is the first anticipation of the notion of universal determinism. The notion of time developed in connection with the notion of fate. It became objective due to certain causes connected with the periodicity of events in nature. It was applied as a scientific notion and dimension to physical phenomena, while human events remained dominated by the notion of fate. The content of fate seems to be in the last analysis the affirmation that human beings constitute a special value outside the laws of nature. In this sense it begins to play again a very large role.—*N. Marginean* (Cluj, Rumania).

3931. Reiser, O. L. *Gestalt psychology and the organismic theory.* *J. soc. Phil.*, 1939, 4, 260-271.—As society progresses, there is greater need for planned integration and control. A new social philosophy must be evolved. The author states the assumptions involved in his conception of the nature of philosophy. Any particular educational system is simply a socially accepted (conventionalized)

philosophy in action and implies a theory of the nature of the organism to be educated and a set of social ideals to be instilled. At present Gestalt psychology gives the educator the most adequate theory of human nature. The organismic theory of society contains a realistic analysis of the nature of society and furnishes the social ideals essential in the modern world. The cultural interpretation of history, the organismic theory of society, the theory of emergent evolution, and Gestalt psychology share the basic idea of a whole which integrates and controls the part-processes. There are instances of organismic patterns in society which duplicate patterns within the individual organism. The examples of isomorphism considered are: (1) organismic dominance through metabolic gradients, (2) the master reaction and pacemakers, (3) dominance through structuralization.—*W. A. Varvel* (Kansas).

3932. Richmond, K. William McDougall, 1871-1938. *Proc. Soc. psych. Res., Lond.*, 1939, 45, 191-195.—An obituary which traces briefly the course of McDougall's career.—*J. G. Pratt* (Duke).

3933. Savchenko, N. S. [Rationalization of the cephalograph.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 174-176.—A highly sensitive cephalograph, modified from Ufland, that registers the slightest head movements is described.—*G. H. S. Razran* (Columbia).

3934. Senges, N. *Psycho-physiologie naturelle et psychologie humaine.* (Natural psychophysiology and human psychology.) *Evolut. psychiat.*, 1938, No. 4, 59-79.—*G. Goldman* (Sorbonne).

3935. Solomon, R. S. Further theoretical considerations of the J-curve hypothesis. *Sociometry*, 1939, 2, No. 2, 59-63.—Dudycha's points (*Sociometry*, 1939, 2, No. 2, 52-58) regarding the 50% limit of conformity, positive acceleration of the J-curve, and leptokurtosis of the double-J-curve do not need further reply than previously given (Dickens & Solomon, *Sociometry*, 1938, 1, 277-291). The suggestion of a workable formula for comparing the total conformity shown in various J-curves is valuable; Dudycha's formula is not without merit, but his suggestion of an index is impracticable. The important characteristics of a curve for the telic continuum are the mode and the range of number of steps on which the balance of the scores are distributed, and on this basis a formula could be developed. "An index of conformity which would adjust percentages according to the significance of (1) the modal step; (2) dispersion in telic units from the modal step; and (3) the number of telic units on the continuum, would be analogous to certain indices of intelligence or learning in that it is based on the fundamental concepts involved, in addition to the nature of the empirical distribution curves."—*L. J. Stone* (Brooklyn College).

3936. Strunz, K., & Brödel, W. *Zur Berechnung von Wertigkeitskoeffizienten.* (The computation of value coefficients.) *Z. angew. Psychol.*, 1938, 55, 273-300.—Correlation technique is applied where measurable variables of individuals are available

or where individuals can be ranked in order. To deal with problems other than these (e.g. the relation between constitutional type and choice of occupation) Helke devised a mathematical procedure expressing relational variables by various so-called value coefficients. The authors develop in more detail this technique of Helke and indicate its range of applicability and its limitations.—G. F. J. Lehner (Vermont).

3937. Tryon, R. C. Cluster analysis: correlation profile and orthometric (factor) analysis for the isolation of unities in mind and personality. Ann Arbor: Edwards Brothers, 1939. (Distributed by Associated Students' Store, Univ. Calif., Berkeley.) Pp. viii + 122. \$2.25.—Two ways, more simple than traditional factor analysis, are given for locating clusters or operational unities in the intercorrelations among personality ratings or test scores. Correlation profile analysis is a new graphic method for determining which variables show the same pattern of correlation coefficients with all the other variables in an investigation (operational unity). Orthometric analysis, so called because it indicates that the relations between the intercorrelated variables are depicted in a frame of arbitrary axes placed at right angles to each other, is a new method of extracting the common components in the variables of an operational unity (clusters). From the theoretical standpoint, the writer emphasizes the distinction between the clustering of test variables in terms of correlation and the fundamental psychobiological determiners of performance. The clusters operate as if they were a unity, but their determinants can be determined only from further experiments. Part I of the text describes the problems in non-mathematical terms; Part II contains a series of job analyses for every operation required; Part III gives a brief statement of mathematical and technical considerations. Short methods of calculation are appended, and a complete index is provided.—J. McV. Hunt (Brown).

3938. [Various.] Proceedings of the XVth international physiological congress, Leningrad-Moscow, August 9-16, 1935. Moscow: Biomedgiz, 1938. Pp. 690.—Proceedings of the congress, the summaries of which were published in 1935. The addresses of I. P. Pavlov, W. B. Cannon, L. Lapicque, A. A. Ukhtomski, A. V. Hill, and G. Barger are given in full. The abstracts of the papers are arranged topically, unlike the alphabetical presentation in the "Summaries." A considerable number of illustrations and photographs.—G. H. S. Razran (Columbia).

3939. Wirth, W. Otto Klemm. Gedenkworte an seiner Bahre bei der Trauerfeier am 9. Januar 1939. (Otto Klemm. Memorial address at the funeral.) *Arch. ges. Psychol.*, 1939, 102, vii-xii.—Summary of Klemm's background and activities in experimental psychology, accompanied by portrait.—H. D. Spoerl (American International College).

[See also abstracts 3988, 4010, 4213, 4242.]

NERVOUS SYSTEM

3940. Asratian, E. [Some observations on decorticated dogs.] *Fiziol. Zh. S.S.S.R.*, 1938, 24, 36-42.—16 dogs were decorticated in 2 successive operations, one for each hemisphere. Only 4 succumbed after the second operation. The remaining 12 survived for 8, 13, 17, 25, 26, 37, 70, 107, 117, 211, 237, and 250 days. The following changes in behavior were observed: extreme fatigability expressed in respiratory and circulatory disturbances, unusual fluctuations in body temperature, digestive difficulties, and lowered resistance to infection and narcosis. However, the main "personality" traits of the dogs are reported to have remained essentially unaltered. The greedy animals persisted in their greed, the apathetic in their apathy, the hyperkinetic animals gave quick reactions, and the hypokinetic were characteristically slow. The experimenter believes that these "traits" either are primarily subcortical in nature or their cortical representations have become transferred to subcortical tissues in the animals' individual lives.—G. H. S. Razran (Columbia).

3941. Bakes, F. P. Effect of response to auditory stimulation on the latent time of blocking of the Berger rhythm. *J. exp. Psychol.*, 1939, 24, 406-418.—In this study the subject was presented a random series of high and low tones under the following conditions: (1) control (non-response), (2) manual discriminatory response to high tone only, (3) manual non-discriminatory speed response to both tones, (4) second control. Results were as follows: (1) The mean latent times for high and low stimulations were about the same in any given situation. (2) Latencies were reduced by 16% when the subject made a manual discriminatory response to the tones. (3) They were reduced by an additional 7% when the subject made a manual speed response to both tones. (4) The effectiveness of tone in depressing the Berger rhythm when the subject made a discriminatory response was about twice that obtained under control conditions. (5) The reaction time was less when the subject made a speed response to both high and low tones than when he made a discriminatory response to the high tone alone. (6) In 74% of the discriminatory response records the latent time of blocking was shorter than the manual reaction time, whereas on only 47% of the speed response records did this relationship obtain. Qualitative evaluation of the wave records revealed altered patterns and shifting characteristics of the wave form under the various experimental conditions.—H. W. Karn (Pittsburgh).

3942. Berry, R. J. A. A cerebral atlas; illustrating the differences between the brains of mentally defective and normal individuals with a social, mental, and neurological record of 120 defectives during life. New York: Oxford Univ. Press, 1938. Pp. 311. \$35.00.

3943. Blair, H. A. Time constant of excitation and velocity in the supernormal phase of nerve. *J.*

Neurophysiol., 1939, 2, 249-255.—M. A. Rubin (Worcester State Hospital).

3944. Bradford, F. K. Ablations of frontal cortex in cats with special reference to enhancement of the scratch reflex. *J. Neurophysiol.*, 1939, 2, 192-201.—M. A. Rubin (Worcester State Hospital).

3945. Bronk, D. W., & Brink, F., Jr. Bioelectric studies of the excitation and response of nerve. *Ann. Rev. Physiol.*, 1939, 1, 385-406.—A review of the literature for 1937 and the first half of 1938.—W. S. Hunter (Brown).

3946. Cannon, W. B. A law of denervation. *Science*, 1939, 89, 439.—Abstract.—R. R. Wiloughby (Brown).

3947. Ceni, C. Die Quantität und die Qualität des Gedankens und die interhemisphärischen Beziehungen. (Quantity and quality of thought and interhemispheric relations.) *Arch. Psychiat. Nervenkr.*, 1939, 109, 379-386.—Each cerebral hemisphere, with the exception of the speech center, has a functional autonomy which permits the realization of psychic processes called forth by external stimuli. This autonomy is limited to the quality or form of the psychic processes. Their quality, however, which comprises intensity, stability and duration, depends on harmonious co-operation of both hemispheres. While hemisphere autonomy is in inverse relationship to the degree of the animal's evolution, inter-hemisphere synergism, and thus quantity of thought, is in direct relationship to evolution.—P. L. Krieger (Leipzig).

3948. Chang, H. C., Hsieh, W. M., & Lu, Y. M. Light-pituitary reflex and the adrenergic-cholinergic sympathetic nerve in a teleost. *Proc. Soc. exp. Biol., N. Y.*, 1939, 40, 455-456.—Work on the snakefish showed that the melanophores are under two types of control, one through the pituitary, which is regulated by light and darkness, and the other through the sympathetic nerve, which is partly adrenergic and partly cholinergic. After removal of sympathetic chains and enucleation of the eyes, a black color appeared except when a previous hypophysectomy had occurred. Stimulation of the myelencephalic sympathetic center produced a fading of the black areas. Local stimulation of the fin-rays produced a dark band peripheral to the cut.—H. Peak (Randolph-Macon).

3949. Clark, G., Magoun, H. W., & Ranson, S. W. Temperature regulation in cats with thalamic lesions. *J. Neurophysiol.*, 1939, 2, 202-207.—Damage to the thalamus of the cat has no effect on the ability to regulate body temperature.—M. A. Rubin (Worcester State Hospital).

3950. Darrow, C. W., & Gellhorn, E. Inhibitory effects of adrenalin on autonomic function. *Proc. Soc. exp. Biol., N. Y.*, 1939, 40, 487-488.—Records of blood pressure, nictitating-membrane responses, pupillary reactions, and galvanic reaction of the foot-pads of cats were photographed before and after severing sympathetic nerves to pupil and nicti-

tating membrane. Brachial plexus, sciatic and splanchnic nerves were stimulated and reactions were compared (1) during secretion of adrenine, (2) under influence of adrenalin perfusion, and (3) after adrenalectomy. Sympathetic responses increase during infusion of adrenalin. "Damping" effects were reduced following ligation of both adrenals. Hyperreflexia induced by metrazol could be reduced by injecting adrenalin.—H. Peak (Randolph-Macon).

3951. Davis, H. Electrical phenomena of the brain and spinal cord. *Ann. Rev. Physiol.*, 1939, 1, 345-362.—A review of the literature for most of 1937-38.—W. S. Hunter (Brown).

3952. Eccles, J. C. The spinal cord and reflex action. *Ann. Rev. Physiol.*, 1939, 1, 363-384.—A review of recent literature to August, 1938.—W. S. Hunter (Brown).

3953. Gerebtzoff, M. A. Sur quelques voies d'association de l'écorce cérébrale. (Some association pathways in the cerebral cortex.) *J. belge Neurol. Psychiat.*, 1939, 39, 205-221.—H. Sys (Cornell).

3954. Goldman, G., & Segal, J. Les interférences induites par des stimuli intermittents dans l'électroencéphalogramme de l'homme. (Interferences induced by intermittent stimuli in the human encephalogram.) *Année psychol.*, 1938, 38, 178-185.—The encephalogram from the occipital region exhibited waves of the alpha frequency whenever the frequency of visual stimulation was in a simple ratio to the autonomous rhythm. With stimulation at intermediate frequencies, interference figures were observed. These waves, favored by an increase in the brilliance and area of the stimulating surface, are considered true interference at the level of the sensory neurones; this factor probably acts to increase the differential sensitivity. The mechanism may be explained in terms of the delayed potentials of Barron and Matthews.—F. W. Finger (Brown).

3955. Göpfert, H. Nervenaktionsströme in Abhängigkeit vom Reizstrom. (The dependence of nerve action currents on the stimulating current.) *Pflüg. Arch. ges. Physiol.*, 1939, 241, 539-557.—M. A. Rubin (Worcester State Hospital).

3956. Griffiths, G. M. Some aspects of the structure of the hypothalamus. *J. Neurol. Psychiat.*, 1939, 2, 154-164.—A critical review.—W. J. Brogden (Johns Hopkins).

3957. Hasama, B. Über die bioelektrische Reaktion des isolierten Grosshirns auf verschiedene Nervengifte. (The bio-electric reaction of the isolated cerebrum to various nerve poisons.) *Arch. exp. Path. Pharmacol.*, 1939, 191, 553-562.—The electric reactions of the cortex to the application of pyrotoxin, chloral hydrate, and nicotine are not qualitatively different, but only quantitatively variable. The stronger the concentration of the solution used, the stronger and more frequent is the

oscillation and the sooner it ceases.—P. L. Krieger (Leipzig).

3958. Hinsey, J. C. The autonomic nervous system. *Ann. Rev. Physiol.*, 1939, 1, 407-446.—A review of the literature.—W. S. Hunter (Brown).

3959. Janzin, R., & Kornmueller, A. [Localized differences in the human electro-encephalogram.] *Arch. Psychiat. Nervenkr.*, 1939, 109, 247-263.

3960. Kaplan, P. M., & Ossetinski, T. G. Mozochok i motorna funktsiya shlunka. (The cerebellum and the motor function of the stomach.) *Méd. exp., Kharkov*, 1939, No. 1, 31-34.—Summary in French.—R. R. Willoughby (Brown).

3961. Katz, B. The "anti-curare" action of a subthreshold catelectrotonus. *J. Physiol.*, 1939, 95, 286-304.—M. A. Rubin (Worcester State Hospital).

3962. Knott, J. R. Some effects of 'mental set' on the electrophysiological processes of the human cerebral cortex. *J. exp. Psychol.*, 1939, 24, 384-405.—Experimental data relating various types of mental set to the electrocortical phenomenon of reduced latent time of blocking of the alpha rhythm to light are discussed, and the question raised whether the reduction is due to central or peripheral factors. A series of experiments is next reported the results of which support a peripheral hypothesis, to the effect that the reduction is due to centripetal impulses rather than centrifugal ones, i.e., to a sensory rather than to a motor gradient.—H. W. Karn (Pittsburgh).

3963. Langworthy, O. R., & Richter, C. P. A physiological study of cerebral motor cortex and decerebrate rigidity in the beaver. *J. Mammal.*, 1938, 19, 70-77.—(*Biol. Abstr.* XIII: 5695).

3964. Leonhard, K. Traumatische Thalamusläsion mit Hemianästhesie und schwerer psychischer Veränderung. (A traumatic thalamus lesion with hemianesthesia and serious mental deviation.) *Arch. Psychiat. Nervenkr.*, 1939, 109, 264-281.—A patient suffered a complete anesthesia of the left side and a partial gustatory and olfactory incapacity as a result of a serious brain concussion and prolonged unconsciousness. In addition there was a pronounced mental deviation, primarily of an affective nature.—P. L. Krieger (Leipzig).

3965. Nielsen, J. M. Function of the minor (usually right) cerebral hemisphere in language. *Bull. Los Angeles neurol. Soc.*, 1938, 3, 67-75.

3966. Piéron, H., & Segal, J. Sur un phénomène de facilitation rétroactive dans l'excitation électrique de branches nerveuses cutanées (sensibilité tactile). (A phenomenon of retroactive facilitation on electrical excitation of branches of cutaneous nerves—tactile sensation.) *J. Neurophysiol.*, 1939, 2, 178-191.—M. A. Rubin (Worcester State Hospital).

3967. Pötzl, O. Über die Beteiligung des Thalamus am Sehakt. (Participation of the thalamus in vision.) *Wien klin. Wschr.*, 1938, 51, 2 Abt., 1001-1003.—The reciprocal thalamo-occipital rela-

tionship is to be considered not only for the simultaneous building-up of ideas of space and separation of figure from background, but also for successive effects. These moderate the temporary after-effects of optic stimuli, making them discontinuous and accenting them in different tempos. They are thus related to the time-measurement of observed movement.—P. L. Krieger (Leipzig).

3968. Pumphrey, R. J., & Young, J. Z. Rates of conduction of nerve fibers of various diameters in cephalopods. *J. exp. Biol.*, 1938, 15, 453-467.—This paper reports and discusses measurements of the rate of conduction in the nerve fibers of the squid *Loligo forbesi* and the cuttlefish *Sepia (Eusepia) officinalis*, estimated from records of the action potentials. The limits of conduction velocity were found to be 2.2-22.8 m./sec. at 20° C., in fibers varying from 30 to 718 μ in diameter. Calculation of the regression coefficient of the logarithm of the conduction rate on the logarithm of the diameter of the fibers indicated that the rate increases with the power 0.614 ± 0.027 of the diameter. On account of various sources of error, described by the authors, they suggest that the exact relation may not lie within the limits specified, but is not likely to be far from the square root. They hold also that although the fibers examined by them have different functions, and come from animals differing in structure and mode of life, the conduction rates of all of them can be approximately expressed as a single function of the diameter, the fibers not differing greatly from each other except in size. 23 references.—C. K. Trueblood (Harvard).

3969. Rubin, M. A., & Wall, C. Brain potential changes in man induced by metrazol. *J. Neurol. Psychiat.*, 1939, 2, 107-113.—The changes in the electro-encephalogram and electromyogram of 11 schizophrenic patients before, during, and after response to metrazol introduced intravenously are described. The alterations of the electro-encephalogram are related to the change in blood chemistry produced by metrazol.—W. J. Brogden (Johns Hopkins).

3970. Secker, J. A note on the suprarenal cortex and the transmission of the activity of the sympathetic nerves of the cat. *J. Physiol.*, 1939, 95, 282-285.—The suprarenal cortex is concerned in the formation of the transmitting agent of sympathetic nervous activity.—M. A. Rubin (Worcester State Hospital).

3971. Walker, A. E. Anatomy, physiology and surgical considerations of the spinal tract of the trigeminal nerve. *J. Neurophysiol.*, 1939, 2, 234-248.—M. A. Rubin (Worcester State Hospital).

3972. Wyss, O. A. M. Impulssynchronisierung in Atmungszentrum. (Synchronization of impulses in the respiratory center.) *Pflüg. Arch. ges. Physiol.*, 1939, 241, 524-538.—M. A. Rubin (Worcester State Hospital).

[See also abstracts 4013, 4093, 4104, 4108, 4144, 4150, 4197, 4330.]

RECEPTIVE AND PERCEPTUAL PROCESSES

3973. Auersperg, A. **Blickbewegung und optischer Erfassungsakt.** (Eye movement and the process of visual grasp.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 607.—With every eye movement there is a corresponding disposition to reproduce and develop the actual picture just seen. Fixation nystagmus and optokinetic serial performance appear to be so determined and directed in their perceptual correlations that what has just been seen in the extrafoveal region is reproduced clearly and is combined with the foveal image into a conscious object with environmental context. In case of occipital focal lesions, these dispositions can develop into corresponding pictures of hallucinatory vividness.—P. L. Krieger (Leipzig).

3974. Bastianelli, R. **Referred pain from bone points.** *Brit. med. J.*, 1939, Part 1, 491-493.—W. J. Brogden (Johns Hopkins).

3975. Bischoff, W. **Betrachtungen über Schärfentiefe eines abbildenden Systems.** (Remarks concerning the perspective of a pictorial system.) *Zeiss Nachr. (II F.H.)*, 1938, 7, 233-240.—Perspective in pictorial presentation depends in part on the visual acuity of the human eye, which can be easily demonstrated by diopters in which depth does not depend on distance.—P. L. Krieger (Leipzig).

3976. Black, M. E. **2-A audiometer norms for determining hypacusia in children between the ages of four and eight.** *J. Speech Disorders*, 1939, 4, 3-14.—Audiometer tests on children between the ages of four and eight were analyzed in one-year age groups and median audiograms plotted for each age group. Each age group represented from 14 to 18 normal children. No real differences were found between the median curves representing the several age groups. "The resulting median hearing curve shows a rise from 10 sensation units at 8192 double vibrations per second to 15 sensation units at 4096 double vibrations per second and another sharper rise from 10 sensation units at the 2048 and 1024 frequencies to 25 at 512 and 256 double vibrations per second." The author concludes that audiometric testing of children of these ages must take into account these norms rather than the "zero line," as is customary in testing adults.—C. V. Hudgins (Clarke School).

3977. Bunge, E., & Heyn, W. **Zur Dunkeladaptation von pigmentarmen und albinotischen Augen.** (Dark adaptation in poorly pigmented and albinotic eyes.) *Klin. Mbl. Augenheilk.*, 1938, 100, 178.—The authors have examined 8 cases of albinism by means of the Engelking and Hartung adaptometer and compared their average curve for dark adaptation with that obtained from 20 normal persons. There was no difference in the course of dark adaptation, nor did fair or dark people show any variation from the normal. This disproves the theory that the amount of retinal pigment can affect the regen-

eration of visual purple.—(Courtesy *Brit. J. Ophthalmol.*)

3978. Christian, P. **Über unbewusste Vestibulariswirkung.** (Unconscious vestibular function.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 607.—Subliminal and hence unnoted rotatory stimuli are perceived in a dark room when accompanied by actual movement of simultaneous optic signals, although these remain stationary in relation to the subject. The vestibular organ alone is stimulated, but its function is apparent only in the visual perception. The range and sensitivity of the vestibular organ can be much increased through this interaction between the vestibular organ and the visual sphere, through reciprocal induction and substitution. Thus minimal rotatory stimuli of 10 minutes of arc per second are perceived correctly with the movement of actually isolated optic signs. The subject's position in the environment arranges itself in consciousness so that things, however they or their retinal images may be, are so perceived that the situation is interpreted with the usual orientation. Thereby only the process which fulfills this purpose in the shortest time becomes conscious.—P. L. Krieger (Leipzig).

3979. Coppée, G. **Recherches récentes sur la physiologie de l'audition.** (Recent studies on the physiology of audition.) *Bull. Soc. philom. Paris*, 1938, 121, 89-112.—After giving a description of the audiogram in both humans and animals, the author gives a detailed discussion of the nature of the cochlear response and an explanation of the auditory pathways in the medulla and the mesencephalon. He concludes the paper with a discussion of recent theories in audition and an account of his own work on the subject.—G. Goldman (Sorbonne).

3980. Crowe, S. J., & Baylor, J. W. **The prevention of deafness.** *J. Amer. med. Ass.*, 1939, 112, 585-590.—W. J. Brogden (Johns Hopkins).

3981. Crozier, W. J., & Wolf, E. **Temperature and the critical intensity for response to visual flicker. III. On the theory of the visual response contour, and the nature of visual duplexity.** *Proc. Nat. Acad. Sci., Wash.*, 1939, 25, 171-175.—The dependence of the mechanism for visual excitation on temperature may provide a means of analytically separating the role of statistical factors from that of photochemical activities. In two teleosts, *Xiphophorus* and *Platyplecilius*, the curves relating critical intensity to flicker frequency are quite different; for each species the "rod" and "cone" segments of the curve are different. The effect of changes of temperature on the critical intensity at constant flicker frequency is precisely the same for both species, and for each species the effect of temperature changes is the same for both rod and cone segments. It is concluded that the photochemical processes in the rods and cones cannot be different. The difference in the rod and cone segments of the curve must be a statistical consequence of differences in the excitation threshold of a kinetically homogenous

population of excitable units.—D. E. Smith (Alberta).

3982. Crozier, W. J., & Wolf, E. Specific constants for visual excitation. IV. On the nature of genetic differences. *Proc. Nat. Acad. Sci., Wash.*, 1939, 25, 176-179.—The form of the curve relating critical intensity and flicker frequency differs in *Xiphophorus* and *Platydocilia* in a number of quantitative features. In hybrids of these species there is manifested a simple dominance of certain quantitative properties of the curves. It has been shown in a previous publication that these differences are not due to differences in photochemical activity; thus these results seem to demonstrate that "statical features" of organization are heritable, without the occurrence of admissible difference of chemical organization as a determinant of the observed genetic differences. The implications of these results for the theory of gene function are discussed.—D. E. Smith (Alberta).

3983. Eggers, F. Beobachtungen und Versuche zur Frage des biologischen Sinnes der Flügelfärbung tagfliegender Lepidopteren. (Observations and experiments on the question of the biological significance of the wing color of day-flying lepidoptera.) *Zool. Jb., Abt. 1*, 1938, 71, 277-289.—Dried Pieridae served to attract members of the same species and of either sex which were similar in wing color to the dead specimens. A living mother-of-pearl butterfly whose wings had been replaced by those of an albino attracted several other albinos. No lepidoptera of contrasting wing colors were caught by this method. Obviously the members of this species recognize each other primarily by sight, but probably also by odor.—P. L. Krieger (Leipzig).

3984. Ehler, R. Das Weber-Fechnersche Gesetz im Farbengebiet bei Darbietung komplizierter Reize. (The Weber-Fechner law in the domain of color with presentation of complex stimuli.) *Arch. ges. Psychol.*, 1939, 102, 517-542.—Complex stimuli were obtained by the mixing through projection of colored lights, the intensity of each component of a given pair of colors being independently variable. Difference thresholds for any combination are additive functions of the thresholds for the single components. Instructions to regard one component or the other as the principal stimulus influence the curves, but largely in terms of the same function as stated above. "The experiments demand a zone within visual perception, in which the combined stimulus operates as if analyzed into its two components."—H. D. Spoerl (American International College).

3985. Elsberg, C. A., & Spotnitz, H. Relation of stimulation time of receptors to recovery time in the nervous system: visual, olfactory and auditory senses. *J. Neurophysiol.*, 1939, 2, 227-234.—M. A. Rubin (Worcester State Hospital).

3986. Erisman, T. Wahrnehmungslehre und Scheinbewegung. Schlussbetrachtung. (Perceptual theory and apparent movement. Conclusion.) *Arch. ges. Psychol.*, 1939, 102, 451-456.—A sum-

marizing of experimental conditions for the production of apparent movement that tends to substantiate the theory supported by Lehmann's experiments. The results of these experiments also agree with uncontested experimental results in the literature of the problem; since the latter involve greatly divergent points of view, mere accidental coincidence is an unlikely explanation, and the perceptual theory thus finds further support.—H. D. Spoerl (American International College).

3987. Georgiade, C. Explicatia mecanismului fiziologic al aprecierilor sensoriale cantitative, după Profesorul Henri Piéron. (An explanation of the physiological mechanism of quantitative sensory appreciations, according to Professor Henri Piéron.) *Anal. Psihol.*, 1938, 5, 320-328.—A longer review of Piéron's book *La connaissance sensorielle et les problèmes de la vision*, which summarizes the papers which Piéron has published during the last twenty years in *L'Année Psychologique* concerning vision and sensory knowledge.—N. Marginean (Cluj, Rumania).

3988. Guilford, J. P. A study in psychodynamics. *Psychometrika*, 1939, 4, 1-23.—Presidential address given at the Psychometric Society meeting, Ohio State University, Columbus, Ohio, Sept. 7, 1938. "In a problem in psychodynamics we relate two sets of measurements both made on certain psychological continua." The measurements here made sought to establish the relationship between the affective value of a color and its visual properties, hue, tint, and chroma. A total of 316 color samples, 2 inches square, were pasted upon a gray cardboard (tint value of 5 on the Munsell scale) which was illuminated for 5 seconds, and to which affective judgments were made in terms of a numerical scale of 11 steps. 20 men served as subjects, each rating 105 colors per sitting and rating all colors twice (on two different days). The reliability of their pooled estimates was .94. Concerning the relation of affective value to hue it was found, in general, that the affective value increased for all hues with an increase in chroma, maxima appearing at red, green, and blue and minima at yellow, blue-green, and purple. There is a continuous rise in affective value with tint when chroma is held constant, and for chroma when tint is held constant. The importance of psychodynamics in other fields is also discussed.—G. F. J. Lehner (Vermont).

3989. Gunn, D. L. The humidity reactions of the woodlouse *Porcellio scaber* Latreille. *J. exp. Biol.*, 1937, 14, 178-186.—A negative hygrokinesis is observed, with increasing immobility as the relative humidity increases above 60%. It appears that the receptors governing this reaction are located in the thorax.—F. W. Finger (Brown).

3990. Haire, M. A note concerning McCulloch's discussion of discrimination habits. *Psychol. Rev.*, 1939, 46, 298-303.—A. G. Bills (Cincinnati).

3991. Hertel, E. Farbenproben zur Prüfung des Farbensinnes. 20. neu bearbeitete Auflage der Stilling'schen Tafeln. (Color tests for testing the

color sense. 20th newly revised edition of the Stilling tables.) Leipzig: Thieme, 1939. Pp. 14. RM. 18.70.—R. R. Willoughby (Brown).

3992. Hester, M. S. The education of the deaf child. *Calif. J. elem. Educ.*, 1938, 7, 85-91.—(Educ. Abstr. IV: 222).

3993. Hughson, W., Ciocco, A., & Palmer, C. Studies of pupils of the Pennsylvania School for the Deaf: I. Auditory acuity. *Arch. Otolaryng., Chicago*, 1939, 29, 403-416.—Audiograms for air conduction of 460 pupils and for bone conduction of 454 pupils of the Pennsylvania School for the Deaf are analyzed from a statistical standpoint. Complete lack of response to auditory stimulation is a rare condition. 95% of the 460 children responded to at least one tonal frequency by air conduction in one ear, and 85% in both ears. In the great majority of cases the loss in hearing is bilateral and approximately equal for the two ears. Since age is not related to the degree of loss, the type of deafness examined does not seem to be progressive. There is no association between auditory thresholds and stated causes of deafness. A sufficient number of children were found to have enough residual hearing, either by air or bone conduction, to warrant some rational effort toward therapeutic relief.—W. J. Brogden (Johns Hopkins).

3994. Jenkins, W. L. Studies in thermal sensitivity: 10. The reliability of seriatim warm-mapping with untrained subjects. *J. exp. Psychol.*, 1939, 24, 439-449.—"Seriatim warm-mapping with 2 and 3 mm stimulators at 46° C. on the same basis as the cold-mapping previously reported (6 times an hour for a two-hour session) was found to involve serious artifacts from adaptation and vascular changes, although high reliability coefficients were obtained in a few cases. When only 5 stimulations were made during a two-hour period, better results were obtained, but still inferior to those secured with cold. Both peak performances and the general level of the reliability coefficients were lower, and the charts of average against individual scores showed wider deviations and more 'wild shots.' However, it is significant that the maps derived from average scores show much the same orderly patterning as with cold. It is maintained that discrimination of warm experiences is essentially more difficult, probably because the range of actual experiences is narrower and the sensitivity itself more variable. With proper precautions, however, it is believed that seriatim warm-mapping can provide a useful technique for further research."—H. W. Karn (Pittsburgh).

3995. Kelley, N. H. A study in presbycusis: auditory loss with increasing age and its effect upon the perception of music and speech. *Arch. Otolaryng., Chicago*, 1939, 29, 506-513.—Auditory thresholds for frequencies up to 1024 cycles remain practically normal with increasing age up to 70 years. Between 70 and 80 the hearing loss at 1024 cycles is 14 decibels. At 50, presbycusis is already ap-

parent for frequencies of 2048 cycles and beyond. The higher the frequency the greater is the auditory loss. Presbycusis for the high frequencies progresses with increasing age. The elimination of all frequencies above 4000 cycles does not affect the experienced quality of a violin tone when heard by a person over 60 who manifests presbycusis. Such elimination definitely alters the character of the same tone heard in the normal ear. In the recognition of vowels the average person past 60 is not seriously handicapped except at a low intensity, 10 decibels above the threshold. At the intensity preferred by a person with normal hearing for ordinary conversation (38 decibels above the threshold), the presbycusic person recognizes 75% of the consonants.—W. J. Brogden (Johns Hopkins).

3996. Kennedy, J. S. The humidity reactions of the African migratory locust *Locusta migratoria migratorioides* R. and F., gregarious phase. *J. exp. Biol.*, 1937, 14, 187-197.—Having a choice between two compartments of unequal humidity, the locust always enters the drier. However, there is no reaction to an asymmetrical humidity of the air surrounding the insect.—F. W. Finger (Brown).

3997. Kuhl, W. Über die Abhängigkeit der Lautstärke des subjektiven Differenztones von der Frequenz der Primärtöne. (The dependence of the intensity of the subjective differential upon the frequency of the primary tones.) *Akust. Z.*, 1939, 4, 43-50.—P. L. Krieger (Leipzig).

3998. Lattin, G. de. Untersuchungen an Isopodenaugen unter besonderer Berücksichtigung der blinden Arten. (Studies of isopod eyes with special emphasis on blind species.) *Zool. Jb., Abt. 2*, 1939, 65, 417-468.—The eyes of seeing isopods consist mainly of a cornea, crystal bodies, and retina cells, while in blind species rudimentary eyes are found which in some cases possess nerve cells capable of functioning. There is no relation between the duration of life in caverns and the extent of reduction of vision or between the receptor and neural elements of the visual apparatus. A genetic explanation seems in order.—P. L. Krieger (Leipzig).

3999. Lehmann, H. Wahrnehmungslehre und Scheinbewegung. Zweiter Teil: Wesen und Entstehung der Scheinbewegung im Lichte neuer Versuche. (Perceptual theory and apparent movement, II: The nature and origin of apparent movement in the light of new investigations.) *Arch. ges. Psychol.*, 1939, 102, 375-450.—Apparent movement is to be explained in terms of a generalized law as the result of "perceptual activity based on experience, consisting of the tendency to organize external phenomena into a unified event." The work of Gemelli is confirmed by new experiments. The basic theoretical assumption is that transcendent thinking determines perceptual processes; in the perception of apparent movement the compulsion to identify the stimuli produces a closure. This principle, rather than any physiological consideration, is the significant item.—H. D. Spoerl (American International College).

4000. Loewe, F. Die Wellenlängen höchster Augenempfindlichkeit und stärkster Sonnenstrahlung. (The wave lengths to which the eye is most sensitive, and those of the strongest sunlight.) *Biol. Beibl. Meteorol. Z.*, 1938, 5, 100.—The human eye is best adapted to sunlight between 35° and 40°, and profits most by it on the average throughout the year.—P. L. Krieger (Leipzig).

4001. Loosanoff, V. L. Effect of temperature upon shell movements of clams, *Venus mercenaria* (L.). *Biol. Bull. Woods Hole*, 1939, 76, 171-182.—W. J. Brogden (Johns Hopkins).

4002. Macfarlan, D. History of audiometry. *Arch. Otolaryng.*, Chicago, 1939, 29, 514-519.—W. J. Brogden (Johns Hopkins).

4003. May Vianna, A. Une famille de daltoniens. A color-blind family. *Ann. Oculist.*, Paris, 1938, 175, 901-910.—A case history is given of a color-blind family (12 men and 5 women), all of whom had definite Dalton disturbances. The study was made with the help of the Polack color test, the Schaaß and Blum picture mosaics, the Ishihara pictures, and the Holmgren wools.—G. Goldman (Sorbonne).

4004. McCulloch, T. L. Reply to a note on discrimination. *Psychol. Rev.*, 1939, 46, 304-307.—A reply to the note of M. Haire in this issue, pp. 298-303.—A. G. Bills (Cincinnati).

4005. Molitor, A. Versuche betreffend die "Rotblindheit" solitärer Bienen. (Experiments on the "red blindness" of solitary bees.) *Verh. zool.-bot. Ges. Wien*, 1937, 86/87, 125-139.—P. L. Krieger (Leipzig).

4006. Müller, C. Zur Erblaubtheit. Untersuchungen auf Grund von 80 Erbgutachten der Ohrenklinik Münster. (On hereditary deafness. Investigations on the basis of 80 heredity cases from the Münster ear clinic.) Düsseldorf: Nolte, 1938. Pp. 10.

4007. Numbers, M. E. An experiment in lip reading. *Volta Rev.*, 1939, 41, 261-264.—Lip-reading tests have shown that pupils who score high in recognizing single vowels also have a high score in recognizing meaningful materials. Similar tests, however, have shown no correlation between consonant recognition and general lip-reading ability. The theoretical reasons for this are discussed. An experiment is described in which the author attempted to improve the lip-reading ability of a group of 8 deaf children ranging in age from 13 to 16 years who had been classified as poor lip readers by teachers and by their scores on a motion-picture test. The method of the experiment was that of giving 20-minute practice daily in vowel recognition for a period of six months. The methods and materials are described in detail. A comparison of the scores from tests given before and after the training period shows a decided gain by the experimental group over the control group.—C. V. Hudgins (Clarke School).

4008. Okumoto, S. Wie kann man Schmerz überwinden? (How can pain be vanquished?) *Z. Psychoanal.*, Tokyo, 1939, 7, Nos. 3-4.

4009. Olmsted, J. M. D. The special senses. *Ann. Rev. Physiol.*, 1939, 1, 447-470.—A review of recent literature.—W. S. Hunter (Brown).

4010. Piéron, H. L'emploi du chromatophanometre comme anomaloscope. (Détermination de l'équation de Rayleigh.) (The use of the chromatophanometer as an anomaloscope; the determination of Rayleigh's equation.) *Bull. Inst. nat. Etud. Trav. Orient. prof.*, 1939, 11, No. 1-2, 4-10.—A description is given of the use of the chromatophanometer in the detection of protanomalies and deuteranomalies by the method of equalizing yellow, the source of which is a fusion of red and green (the Hering papers) for a given yellow. This article contains a description of the apparatus, the relative values in percentages of green, and the technique used. Norms will be given in a later paper.—G. Goldman (Sorbonne).

4011. Pringle, J. W. S. Proprioception in insects: III. Function of the hair sensillae at the joints. *J. exp. Biol.*, 1938, 15, 467-473.—This paper reports experiments in electrically recorded stimulation of the sensillae in the hair-plates in three positions on the legs of the cockroach *Periplaneta americana* L. The dissected nerve from the sense organs was placed on fine platinum-wire electrodes connected with a four-stage condenser-coupled amplifier feeding a Matthews (1928) oscillograph and loud-speaker. The sensillae were found to be mechanical sense organs with a slow rate of adaptation. They are stimulated in the normal life of the insect by a fold in the intersegmental membrane, the excitation varying with the position of the joint. It is suggested that these and like structures in other parts of the insect body serve as "position" receptors. 8 references.—C. K. Trueblood (Harvard).

4012. Richardson, J. R., Holmes, E. M., & Mueller, W. Anatomy and physiology of the ear. *Arch. Otolaryng.*, Chicago, 1939, 29, 560-577.—A review of the literature from October, 1937, through September, 1938.—W. J. Brogden (Johns Hopkins).

4013. Rudder, B. de. Jahreszeit und Wetter in der Biologie des Menschen. (Season and weather in human biology.) *Naturwissenschaften*, 1938, 26, 672-676.—The discovery of a direct connection between the control centers for the optic nerve in the midbrain and the hypophysis leads one to infer, also in man, a seasonal influence of visible light on its internal secretion.—P. L. Krieger (Leipzig).

4014. Salt, G. The sense used by *Trichogramma* to distinguish between parasitized and unparasitized hosts. *Proc. roy. Soc.*, 1937, 122B, 55-75.—The female of *Trichogramma evanescens* lays eggs in the eggs of *Sitotraga cerealella*, but only in those which do not already have parasites. If the eggs are even manipulated by another female, they are not subsequently adopted as hosts. The author has been able to eliminate vision, hearing, and touch as mediators of the ability thus to discriminate. If

parasitized eggs are washed, a female will introduce her ovipositor into them as if to lay, but will not deposit eggs. There are then two inhibiting factors involved: an external odor, and some means by which the ovipositor can discriminate concerning the internal condition of the eggs.—F. W. Finger (Brown).

4015. Savchenko, N. S., & Shcherbakova, O. P. [Methods of functional investigations of hearing in man.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 181-190.—A new instrument for measuring auditory acuity is described, and the results of the acuity of 6 subjects, who were subjected to noises simulating various life situations, are presented. Diurnal curves and curves of recovery from adaptation to noise are also given.—G. H. S. Razran (Columbia).

4016. Schmid, B. Zur Psychologie der Caniden (Wolf-Hund-Fuchs). (Psychology of the Canidae—wolf, dog, fox.) *Zbl. Kleintierk. Pelztierk.*, 1936, 12, 1-77.—The least developed of the wolf's senses is sight. The young wolf which was studied could not recognize his master beyond 8-10 meters, which corresponds to the poorest visual performances of dogs. The wolf's sound localization, sense of space, and memory were, however, well developed at 8 weeks. Of 14 police dogs, one recognized a moving object at 900 meters, and two at 810 meters. The best record for the recognition of a stationary object was 585 meters. A dog's nasal function is not confined to smell, but is closely related to memory, evaluation of experience, concentration, and affect. Uneven ground is unsuitable for experiments on vision, as the dog lacks the power of combination and interpolation. The fox's vocal expressions are barking, snarling, growling, puffing, whining, and the sound of the chase. Each has its special meaning. A fox learned to imitate an entire octave by growling. If he did not get the sounds right at first, he practised until he succeeded. He finally answered to the basic note with the octave, and vice versa. At last he managed almost two octaves.—P. L. Krieger (Leipzig).

4017. Schreiner, H. Das Wärmegefühl nach Calciuminjectionen. (The feeling of warmth following calcium injections.) Göttingen: (Phil. Diss.), 1938. Pp. 20.—The nerves for the sensation of cold and the receptors for the pressure sense are not affected by intracutaneous injections of calcium, but those for warmth are stimulated, even in areas previously anesthetized.—P. L. Krieger (Leipzig).

4018. Schubert, G. Die binokulare Koordination der Sehfunktionen. (Binocular co-ordination of visual functions.) *Pflüg. Arch. ges. Physiol.*, 1939, 241, 470-494.—M. A. Rubin (Worcester State Hospital).

4019. Shen, N. C. Les différences individuelles dans les fréquences critiques de fusion visuelle. Une étude de la théorie de la persévérance de Spearman. (Individual differences in the critical frequencies of visual fusion. A study of Spearman's theory of perseveration.) *Année psychol.*, 1938, 38, 162-177.—This study had two aims: (1) to compare the differ-

ences of critical flicker frequencies among the members of a group with daily individual variations; and (2) to examine the relationships among the various tests employed, thus indicating the presence or absence of a general factor of perseveration (Spearman). Critical frequencies were obtained by the method of limits, using for the different tests varying chromatic and achromatic combinations in a two-sector disk. The data indicate that the results of single subjects from day to day were no less variable than the figures obtained from the different subjects. Pearson correlation coefficients among the tests were all positive and quite high. According to Spearman's theory, this would mean either the presence of a general factor or an overlap of specific factors, due to the similarity of the tests. Examination of tetrad differences leads the investigator to favor the former explanation.—F. W. Finger (Brown).

4020. Stevens, S. S., & Jones, R. C. The mechanism of hearing by electrical stimulation. *J. acoust. Soc. Amer.*, 1939, 10, 261-269.—"The harmonic components of the complex tone heard when a sinusoidal electric current is passed through the head were measured by the method of 'best beats.' The relative intensity of these components was determined with and without a polarizing d.c. simultaneously applied. With no d.c. the observer hears only the second harmonic of the stimulating frequency, but in the presence of a d.c. he hears the fundamental as well. The quantitative relations between the perceived harmonic components and the polarizing current demonstrate that the response of the ear to electrical stimulation follows a square law. On the assumption that the eardrum is moved by electrostatic pressure whenever there is a difference of potential between the eardrum and the inner surface of the middle ear, it is possible to account for the square-law response. The middle ear appears, therefore, to behave as a condenser receiver. The large amount of distortion which normally prevents an observer from understanding a radio broadcast when the electrical output of a radio receiver is passed directly through his head can be reduced by the application of a polarizing d.c."—S. S. Stevens (Harvard).

4021. Stovel, L. The rural child who is hard of hearing. *Publ. Hlth Nurs.*, 1938, 30, 660-663.—(*Child Developm. Abstr.* XIII: 665).

4022. Strehl, C. Schulische, berufliche und nachgehende Fürsorge für Blinde und Sehschwache. (Educational, vocational, and subsequent care for the blind and weak-sighted.) Leipzig: G. Thieme, 1939. Pp. 79. RM. 4.—

4023. Thorpe, W. H., & Jones, F. G. W. Olfactory conditioning in a parasitic insect and its relation to the problems of host selection. *Proc. roy. Soc.*, 1937, 124B, 56-79.—The ichneumon fly *Nemeritis canescens* selects very specifically as host for the eggs the larvae of *Ephesia kuehniella*. However, when the parasites come in contact with the larvae of *Meliphora grisella*, and can be influenced

by their odor, they will accept this species as host; the eggs laid in these forms mature normally. The individuals which develop in this new host keep their hereditary preferences for *Ephestia*, but with a less rigid selectivity, statistically. It is to be noted that the usual food of the *Ephestia* larvae, oatmeal (the odor of which doubtless pervades the larvae themselves), exercises considerable attraction for *Nemeritis*.—F. W. Finger (Brown).

4024. Thouless, R. H. Eye and brain as factors in visual perception. *Rep. Brit. Ass. Adv. Sci.*, 1938, 108, 197-212.

4025. Uhlig, H. Warum noch besondere Schwerhörigenschulen? (Why should there still be special schools for the deaf?) *Dtsch. Sonderschule*, 1938, 5, 680-684.—Even the slightest cases of deafness cannot be taught in the ordinary classes. Deaf children fall into the following types: auditory-visual with normal speech; visual with normal speech; and those with defective speech. Type I dominates. Type III should not be taught with Type I because they need speech training which requires special methods of instruction. Type II may under some circumstances be included with Type I. Naturally, special classes for each type are preferable.—P. L. Krieger (Leipzig).

4026. Wellek, A. Das absolute Gehör und seine Typen. (Absolute pitch and its types.) *Beih. Z. angew. Psychol.*, 1938, No. 83. Pp. 368.—In this comprehensive research the relation of absolute pitch, investigated with 65 individuals so gifted, was considered in relation to (1) such musical variables as single tones, tonal complexes, scale position, etc., (2) the different psychological types, (3) the phenomenon of synesthesia. Of the 65 individuals tested, 43 were men, 22 women; the more frequent occurrence of absolute pitch among men is substantiated also from other studies cited. Some individuals show absolute pitch for only certain tones, or for a certain range, or even for certain keys. Absolute pitch is believed to be a native ability, relatively uninfluenced by practice. The least amount of average error in identifying tones was made for tones in the middle of the scale, the greater extremes showing more error. Typological differences appeared, as judged from nature of the errors made. The extent of the error made by one type of individual was about a half tone, of another type around four tones, from the given tone.—G. F. J. Lehner (Vermont).

4027. Wilska, A. Untersuchungen über das Richtungshören. (Studies on auditory localization.) *Acta Soc. Med. 'Duodecim'*, 1935, Ser. A., T. 21, Fasc. 1. Pp. 86.

4028. Wolf, H. Exakte Messungen über die zur Erregung des Drucksinnes erforderlichen Reizgrößen. (Exact measurements on the size of the stimulus necessary to excite the pressure sense.) *Zeulenroda-Thür.*: Sporn, 1938. Pp. 72.

[See also abstracts 3941, 3954, 3962, 3964, 3966, 3967, 4080, 4147, 4179, 4226.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

4029. Beniuc, M. Problema functionala in psihologia comparata. (The functional problem in comparative psychology.) *Rev. Psihol.*, 1938, 1, 320-332.—Critical considerations concerning the notion of insight, as defined especially by Köhler and Uexküll.—N. Marginean (Cluj, Rumania).

4030. Blatz, W. E. Beyond the IQ: some comments on "intelligence." *Understanding the Child*, 1939, 8, No. 1, 4-5.—S. A. Kirk (Milwaukee).

4031. Brogden, W. J. The effect of frequency of reinforcement upon the level of conditioning. *J. exp. Psychol.*, 1939, 24, 419-431.—Experimental results obtained on three different conditioned responses in dogs show that a relatively low frequency of reinforcement is capable of maintaining a CR at a high response level. Conditioned flexion reinforced by shock did not drop below 92.50%; conditioned flexion reinforced by food did not drop below 81.25%; and conditioned salivation did not drop below 82.75%. Each of these scores was obtained under reinforcement 20% of the time. It is concluded that the assumption from Pavlov's laws that the CS must always be followed by the US does not hold.—H. W. Karn (Pittsburgh).

4032. Chobat, R., Spadavecchia, R., & DeSanctis, R. M. Intelligence rating and emotional pattern of allergic children. *Amer. J. Dis. Child.*, 1939, 57, 831-837.—The intelligence ratings of 169 allergic children were obtained by using one of four standard intelligence tests, the test used being determined by the age of the subject. The emotional pattern was secured by the use of the Pintner personality outline and a "pupil's portrait questionnaire." Allergic children are neither retarded nor advanced in intelligence as compared with normal children. Allergic girls are emotionally more stable and better adjusted to their environments than allergic boys. Allergic children show all degrees of ascendance and submission, extraversion and introversion, the tendency being slightly toward submission and introversion for the group as a whole.—W. J. Brogden (Johns Hopkins).

4033. Deriabin, V. S. [The effect of bulbocapnin upon conditioned food reflexes.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 393-404.—Doses of .35-.5 mg. per kg. of weight had no effect upon the behavior and the CR's of dogs. Doses of .6-1.0 produced temporary disappearances of CR's, especially the differential CR's, but had little influence upon the general food activities of the animals. 2.1, 3.5, and 7 mg. per kg. of body weight not only resulted in total disappearances of all laboratory CR's, but the dogs refused food for periods of 1-10 hours, the duration of the refusals being proportional to the dosages. 14.2 mg./kg. caused catalepsy. In recovery the various functions returned in orders reverse to the disappearances. No after-effects were noted on subsequent days.—G. H. S. Razran (Columbia).

4034. English, H. B., & Edwards, A. L. Reminiscence, substance learning and initial difficulty—a methodological study. *Psychol. Rev.*, 1939, 46, 253-263.—In a previous study it had been established that the Ballard type of retention curve, showing reminiscence, results from the learning of material for later recognition of the sense or substance (the so-called S-score) while the Ebbinghaus type of retention curve, showing forgetting, results from material learned by rote (the so-called V-score). When 30 students were tested immediately and after 30 and 90 days for retention of an unfamiliar passage which they both read and heard read, with separate scoring of 20 V- and 20 S-items, there was found a significant drop in the average number of V-items and a gain in average S-items. But since S-items were initially more difficult in the learning, there would be greater opportunity for improvement in their later recall than in the case of the V-items. When this factor of difference in initial difficulty was ruled out, however, there still remained some correlation between forgetting and V-items, and between reminiscence and S-items. It is suggested that other research may suffer from just such inadequacies of analysis as had to be corrected in this study.—A. G. Bills (Cincinnati).

4035. Fervers, E. Über Michael Faradays Entdeckung der Induktion. (Concerning Michael Faraday's discovery of induction.) *Z. angew. Psychol.*, 1938, 55, 301-324.—The author is interested in the problem of the psychology of invention and discovery, and traces step by step the process (based upon notes as recorded by himself and his biographers) by which Faraday made his discovery of electrical induction. The psychological restructuring of known facts played an important role.—G. F. J. Lehner (Vermont).

4036. Gerardin, F. Hallucinations hypnagogiques. Phénomènes psychiques d'endormissement et de réveil. (Hypnagogic hallucinations. Psychological phenomena accompanying falling asleep and awakening.) *Evolut. psychiat.*, 1938, No. 4, 23-33.—Gerardin describes his own experiences of hypnagogic hallucination, upon which he bases his definition of this psychological phenomenon: the hypnagogic hallucination is a sensory projection (which is perceptible at the moment of falling asleep) of a more or less complex psychological act.—G. Goldman (Sorbonne).

4037. Halbwachs, M. La mémoire collective chez les musiciens. (Collective memory in musicians.) *Rev. phil.*, 1938, 64, 136-165.—G. Goldman (Sorbonne).

4038. Hilgard, E. R. Physiological psychology: I. The conditioned reflex. *Ann. Rev. Physiol.*, 1939, 1, 471-486.—A review primarily of the literature of 1937.—W. S. Hunter (Brown).

4039. Hill, C. J., & Calvin, J. S. The joint extinction of two simple excitatory tendencies. *J. comp. Psychol.*, 1939, 27, 215-232.—Rats were given (in a modified Skinner conditioning apparatus) 40 rewarded trials in which they were to depress a

horizontal lever. These trials were followed by 20 in which a vertical lever was to be pushed sideways. The animals were then divided into two groups equated for rate of learning. A day later one group was given extinction trials with neither response resulting in food. The other was given extinction trials with the horizontal bar alone. After extinction (no response in five minutes) both groups were required to respond to the vertical bar without reward. The chief findings are: In joint extinction there is alternation of habits, probably due to extinction and spontaneous recovery. The stronger habit tends to occur first, last, and with greatest frequency. Consecutive responses on one bar occur at progressively longer intervals. The interval between shifts of habits is greater than others. The mean number of responses to the horizontal bar through successive tenths of extinction yields a negatively accelerated gradient. The weaker vertical-bar response shows an initial rise. Joint extinction of the habits requires as many reactions on the strong habit as does extinction of the strong habit alone. Total extinction time for the two habits is longer than for the stronger habit alone. Bibliography.—N. L. Munn (Vanderbilt).

4040. Honzik, C. H. The role of stimulation in maze learning: specificity vs. patterning. *J. comp. Psychol.*, 1939, 27, 149-164.—In a previous study it was demonstrated that the dominant intra-maze cues used by blind rats in learning an elevated maze are olfactory. The present research is an attempt to ascertain whether these olfactory cues are specific (i.e., related to discrete units of the path) or whether they form "a flowing continuous process." Lengthening the maze units, although it altered the position of olfactory cues within discrete portions of the path, did not increase the error scores. Interchanging of maze units, however, was followed by a large error increase. A smaller increase in errors was observed when blinds were shortened, thus introducing elements of the olfactory pattern at an earlier point in the path. Interchanging of units at and between choice points led to a similar increase in errors. "So far at least as maze learning by blind rats is concerned, there seems to be no such thing as a single stimulus . . . to account for the test results stimulation is to be conceived as a truly continuous process."—N. L. Munn (Vanderbilt).

4041. Hull, C. L. Simple trial and error learning. *J. comp. Psychol.*, 1939, 27, 233-257.—15 previously reported theoretical propositions derived from conditioned-reaction principles were tested by observing the behavior of 159 rats in Youtz's modification of Skinner's conditioning apparatus. Three experiments involving simple trial-and-error behavior, but differing somewhat in stimulating conditions and in the nature of the specific responses called for, gave support to all but one of the 15 propositions. The proposition not supported by these data demands "a progressively lengthened inter-reaction interval during the error phase of the second cycle." The writer points out that failure to obtain support for this proposition is his most significant finding, for "it

necessarily leads to a re-examination and revision of the postulates of the system." Bibliography.—N. L. Munn (Vanderbilt).

4042. Kellogg, W. N. The relationship between ambiguous conditioning and experimental extinction in dogs. A follow-up report. *J. comp. Psychol.*, 1939, 27, 283-287.—The writer previously reported that a dog conditioned by the buzz-shock technique to raise his right forepaw may also lift his left foot to the buzzer as soon as shock is transferred to this foot. He lifts both feet at nearly the same time. Additional observations indicate: (1) that such responses may last for 350 or more stimulations of the left forepaw preceded by a buzz, (2) that ambiguous conditioners are not necessarily slow learners, (3) that dogs which do not condition ambiguously are those whose right CR extinguishes before the left foot is conditioned, (4) that ambiguous conditioners extinguish the right-foot response long after the left foot has been conditioned, (5) that ambiguous conditioners are slow in experimental extinction, (6) that ambiguous conditioners learn what to do rapidly, but not what not to do, and (7) that hypersensitivity to electrical stimulation may to some extent account for ambiguous conditioning.—N. L. Munn (Vanderbilt).

4043. Kellogg, W. N., & Wolf, I. S. The nature of the response retained after several varieties of conditioning in the same subjects. *J. exp. Psychol.*, 1939, 24, 366-383.—About 5000 stimuli were given to six dogs over a period of more than a year, in several kinds of conditioning and extinction. Retention tests were made with the conditioned stimulus alone after intervals up to six months. A typical experiment showed that, even though many more stimuli were required to condition the right forepaw than were subsequently required to condition the left, the subjects uniformly retained and reproduced the left-foot CR's after an interval, in preference to right-foot CR's. The following law seems best adapted to express all of the various experimental findings: Frequency plays only a secondary role in the retention and reproduction of CR's of the sort studied. It seems to be important only in building up the response most recently conditioned.—H. W. Karn (Pittsburgh).

4044. Kharchenko, N. S. [Conditioned reflex activities in small birds and pigeons.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 1009-1016.—5 goldfinches, 2 greenfinches, 2 siskins, 3 sparrows, and 3 pigeons were used. The apparatus consisted of cages with pneumatic feeding boxes that registered on a kymograph. The experimenter was isolated from the birds, observing them through an opening, and the birds were always free to move about. The conditioned stimuli were electric lamps of 25, 40, 60, 100, and 200 watts. The sparrows were the fastest in forming the CR's (30-40 trials), and the goldfinches were the slowest (70-80 trials). In all birds it was extremely difficult to stabilize the responses, and the transitional periods between first appearance and stabilization were of long duration. Differential

CR's were also hard to obtain, but the differentiations between 100 and 200 watts were much easier than those between 40 and 25 and even between 60 and 25-watt lamps. It was impossible to form CR's to the sounds of metronomes in the small birds even after they became overtly adapted to the sounds. In the pigeons a CR to a metronome was established only after very prolonged experimentation. The pigeons also learned to differentiate between lamps of different colors, responding positively to a green light and negatively to a red or a blue one. "Birds possess highly developed excitatory processes, but their inhibitions are very poorly developed."—G. H. S. Razran (Columbia).

4045. Korotkin, I. I. [The mechanism of the so-called "ratio" phenomenon in the physiology of the highest nervous system.] *Fiziol. Zh. S.S.S.R.*, 1938, 24, 696-714.—3 female subjects, 20-35 years of age, were used. With 2 subjects the Ivanov-Smolensky grasping technique was employed, and with the third the shock procedure was used. The electrodes were connected directly to the middle finger and the subject received a shock whether she did or did not remove her hand from the plate. Kymographic records were made not only of wrist movements but also of breathing and general bodily action by means of a spring-cushion on which the subject sat. The conditioned stimuli were a bell and a metronome of 120 beats per minute, from which was differentiated a metronome of 80 beats. The 120-metronome generalized to a 192-metronome and the 80-metronome to a 48-metronome, but no spontaneous relative CR to the more rapid rate was obtained. However, after a few combinations of metronome 192 with 120 and of metronome 80 with 48, the subjects came to respond positively to the more rapid tempo irrespective of their previous absolute conditionings. Subjective reports indicated that the subjects changed correspondingly their perceptual sets.—G. H. S. Razran (Columbia).

4046. Kotliarevsky, L. I. [Cardio-vascular conditioned reflexes to direct and to verbal stimuli.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 228-242.—An attempt was made to condition the "Aschner phenomenon," the retardation of the pulse upon pressing the eye-ball, in 34 children, 5-15 years of age. The pressure was produced by means of a special pneumatic apparatus fitted on the eye, and the conditioned stimulus was the sound of a bell administered 8-10 seconds before the pressure and continued with it for another 25-30 seconds. Reliable conditioning—pulse retardation to the bell—was established in 29 children after a few trials. In 9 of 12 children tested the conditioning generalized to the sound of the word "bell," after previous trials ascertained that indifferent words had no effect. The 3 children who manifested no sound-word transfer still were readily conditioned to the sound of the word "bradycardia," which had been specifically combined with pressing the eye-ball. All 12 children generalized their cardio-vascular CR's to "self-instruction," when they themselves pronounced the words; in the

9 children this generalization was directly from the sensory conditioning, and in the 3 children from the verbal conditioning with the words pronounced by the experimenter.—G. H. S. Razran (Columbia).

4047. Leonhardt, C. *Psychologische Indizien (Symptome) die für die Wahrheitserforschung in der Rechtspflege von hervorragender Bedeutung sind.* (Psychological indices (symptoms) which are of primary importance in ascertaining the truth in testimony.) *Z. angew. Psychol.*, 1938, 55, 324-333.—The author, concerned with evidence of doubtful validity, points out that it is necessary in the evaluation of the evidence submitted to consider, from a psychological point of view, (1) the internal consistency of the evidence, (2) the affective symptoms of the individuals testifying, and (3) characteristic differences in affective reactions as determined from other evidence and as peculiar to certain types.—G. F. J. Lehner (Vermont).

4048. Lindberg, A. A. [The mechanism of the action of bromides.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 749-762.—6 food CR's were established in a dog: 2 visual, 2 auditory, and 2 tactile. The conditioned stimuli preceded the feedings by 30 seconds, and the salivations were compared with each other in 5-second periods. Before the administration of the bromides, the ratio of the salivation of the first 5 to that of the last 5 seconds was 1 : 1.6, that of the first half (first 15 seconds) to second half 4 : 5, and the 3rd, 4th, and last 5-second periods were equal in amount. After the administration of the bromides, the ratio of the first half to the second half was 1 : 1.95, that of the first 5 to the last 5 seconds 1 : 2, and that of the 3rd 5 to the last 5 seconds 1 : 1.4. "Bromides affect the process of internal inhibition. This process is more pronounced in the beginning of the delay of a delayed CR. Bromides do not alter the total quantity of the salivation, but only help the concentration of the inhibition and the regulation of the delay."—G. H. S. Razran (Columbia).

4049. Lindberg, A. A. [The pharmacology of bromides.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 763-776.—Bromides (3.0 gm. per day) were administered to a very apathetic dog with generalized inhibition that formed CR's with great difficulty. At the beginning the bromides were helpful and the animal obtained CR's to a metronome of 50 beats per minute, a light, the bubbling of water, and the scratching of the skin. After 50-60 days of administration the bromides lost their potency, the old CR's declining and new CR's being unstable. Increasing or decreasing the dosages, discontinuing them altogether, and administering caffeine were of no avail. However, feeding the animal large quantities of beer, water, and table-salt solutions eventually restored the power of the bromides to stabilize the CR activities of the animal.—G. H. S. Razran (Columbia).

4050. Lindberg, A. A. [Consequences of the disruption of the inductive relationships between excitatory and inhibitory reflexes in a dog of an excitable type.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 955-965.—A dog had a CR to the ringing of the telephone,

the flashing of a 50-watt lamp, and to a "scratcher"—28 scratches per minute on the left shoulder blade. The conditioned stimuli preceded the feeding by 30 seconds, and the intervals between trials were 5 minutes. The formation of the CR's was fast, and a partial differentiation was made from a "scratcher" applied at the right side, the positive stimulus producing 80 divisions of saliva and the negative only 16-30 divisions. When the positive stimulus was partially extinguished (to 12 divisions on the scale), the negative stimulus began to elicit 78-103 divisions of saliva per 30 seconds. This is induction that is apparently very generalized before the two regions have been demarcated in the brain. It also may be considered as a form of the ultraparadoxical phase (positive stimuli producing negative responses and negative stimuli positive) which has been noted in disturbances of the "experimental neurosis" type. The administration of bromides helped the demarcation in the cortex and the two stimuli reassumed their normal functions.—G. H. S. Razran (Columbia).

4051. Lindberg, A. A. [A case of an isolated disturbance of the inhibitory process in a limited region of the auditory analyzer of the cortex of the dog.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 966-978.—Food CR's were formed in a 9-year-old dog to a noise, a metronome of 100 beats per minute, and a "scratcher" of 28 scratches per minute administered to the right haunch. This animal also had a previous CR to a 100-beat metronome from which a 200-beat one was differentiated. In all cases the conditioned stimuli preceded the feedings by 15 seconds and the intervals between individual trials were 5 minutes. When an attempt was made to establish a differential CR between the 100-beat metronome and one of 50 beats, the task proved impossible despite a very prolonged period of experimentation. The dog did, however, readily form differential CR's between a 28-scratch scratcher and one of 60 scratches, between a weak and a loud noise, and between a normal and a dampened metronome. He also was easily conditioned to metronomes of other rates. Since in the dog's previous conditioning history a more rapid metronome was the negative stimulus and a less rapid one the positive stimulus, it was thought that such a differentiation might be achievable; but this, too, failed, the animal being unable to differentiate between any metronome rates. "It is a case of an acquired functional disturbance affecting only the region of the brain that governs the inhibitory process for rates of metronomes."—G. H. S. Razran (Columbia).

4052. Maier, N. R. F. The specific processes constituting the learning function. *Psychol. Rev.*, 1939, 46, 241-252.—There is adequate experimental evidence for breaking up the learning function into a pattern of specific mechanisms which underlie the correlations which have been obtained between different learning problems. Among these mechanisms which can be separately measured are: (1) Variability, or the tendency to display different behavior patterns. Maier disagrees with Kreh-

sky's interpretation of the failure of operated rats to show variability, attributing it to preference rather than lack of ability. (2) Plasticity, or the animal's susceptibility to the formation of associations when other factors remain constant. (3) Perception, or the organization of sensory data depending upon the different aspects of a situation to which the animal reacts. (4) Behavior repertoire, or the total number of reaction tendencies possessed by the animal. Finally, (5) fixation, or the continued tendency to function of habits already altered. The foregoing list is suggestive rather than dogmatic. The trend in terminology, however, should be toward restriction in meaning, rather than expansion, for the sake of clarity in scientific communication.—A. G. Bills (Cincinnati).

4053. Marquis, D. G., & Porter, J. M., Jr. Differential characteristics of conditioned eyelid responses established in reflex and voluntary reinforcement. *J. exp. Psychol.*, 1939, 24, 347-365.—"Comparison was made of the functional characteristics of two types of conditioned eyelid responses established under comparable experimental conditions (1) with reinforcement by an instructed voluntary wink, and (2) with reinforcement by the corneal reflex elicited by an air-puff. The two types of conditioned responses showed marked differences in their descriptive characteristics, their modification during training, and in the effect of alterations in experimental conditions and procedure. Although the voluntary and the reflex winks used for reinforcement are identical movements . . . the conditioned response developed with one is entirely different from that developed with the other. A most important variable in determining the nature and strength of voluntary-reinforced conditioned responses is the degree and efficiency of the subject's set to discriminate between the conditioned and unconditioned stimuli, as revealed objectively by his reaction time to the unconditioned stimulus."—H. W. Karn (Pittsburgh).

4054. Martino, G. The conditioned reflex of blinking. *J. Neurophysiol.*, 1939, 2, 173-177.—A brief report on conditioned blinking and the implications of this work in the light of studies by Pavlov and Gantt.—M. A. Rubin (Worcester State Hospital).

4055. McCord, F. The delayed reaction and memory in rats. II. An analysis of the behavioral dimension. *J. comp. Psychol.*, 1939, 27, 175-210.—The aim of this extension of the previously reported experiment was "to ascertain the effect of a change in the behavioral dimension in the set-up . . . upon the 'goodness' of the animals' responses and to attempt to determine the specific manner of operation of such a change should the effect be evident." This experiment differed fundamentally from the preceding one only in that the size of the jumping platform was varied. Although, in terms of the gross scores, there was not a statistically significant influence of changes in this variable, the author feels that analysis of free delays and observation of

behavior during these delays indicates a functionally valid difference in favor of the smaller platform. Of special significance, according to the author, is "the topological fact that the animals were nearer to the food-boxes on the larger platform with the possible result of too precipitate choices, and perhaps, 'regressions' in cognition and response due to the proximity of a positive goal valence." Bibliography.—N. L. Munn (Vanderbilt).

4056. Novikova, A. A. [The problem of the physiological mechanism of conditioned relative reflexes.] *Fiziol. Zh. S.S.S.R.*, 1938, 24, 831-843.—A dog had positive CR's to a bell, a vibrator, a light, and a metronome of 120 beats per minute, and a negative differential CR to a metronome of 60 beats. The positive metronome generalized to a metronome of 240 beats and the negative metronome to a metronome of 30 beats. When the 60-metronome was tried after the 30-metronome, the latter produced positive results which looked like the formation of a relative CR to the more rapid tempo. However, the same results were obtained also with 2 60-metronomes given in succession, while the succession of metronomes 240 and 120 was followed by positive CR's to both. Furthermore, this apparent relative CR disappeared after a few trials. The experimenter therefore attributes her findings to "stereotype" conditioning. In the experiment negative stimuli were always followed by positive, but positive stimuli were often succeeded by other positive stimuli. When the generalized negative 30-metronome was followed by the 60-metronome, the 60-metronome became positive because of the stereotyped temporal order. The 240 and 120 metronomes both produced positive CR's, since the succession of 2 positive stimuli was common in the experiment. A few combinations of the pairs of metronomes broke up their temporal stereotype. There was no generalization from the metronome frequencies to CR's to lights that flickered at the same rates.—G. H. S. Razran (Columbia).

4057. Penrose, L. S. Intelligence and birth rate. *Occup. Psychol., Lond.*, 1939, 13, 110-125.—This is a summary of the results of some studies that have been made on the relation between general and differential birth rate and intelligence, and of the relation between birth order and level of intelligence. Among first-borns, congenital diseases and abnormalities, e.g. anencephaly and idiocy, are more common than among any other group; the same holds true when a comparison is made between children born at the optimum maternal age, 20-30, and those born much later. The number of stillbirths also increases as the age of the parents advances.—H. Moore (Mt. Holyoke).

4058. Petrova, M. K., & Usiyevich, M. A. [Reactivity ranges of organisms to bromides.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 215-227.—Bromides have been used in Pavlov's laboratory for 25 years in connection with studies of conditioned reflexes. Pavlov himself stated that bromides directly affect only the inhibitory processes, their relations to

excitatory functions being only indirect. Results from 8 dogs with which prolonged experimentation has been made are presented. The optimal dosages vary greatly, from .0001 mg. per kg. of body weight in an extremely shy dog to 8.0 mg. in a very excitable animal with a highly developed "social reflex." Doses above optimal produce general depression of behavior, then are toxic, and may even prove fatal. The most important determinants of optimum dosages are the "types" of the animals, but the dogs' physiological and "conditioned" states are also of considerable significance. Bromides are useful for developing differentiations, stabilizing extinctions, concentrating very generalized inhibitions, regulating delays in CR's, and preventing and curing "experimental neurosis" and hypnosis.—G. H. S. Razran (Columbia).

4059. Poe, E., Poe, C. F., & Muenzinger, K. F. The effect of vitamin deficiency upon the acquisition and retention of the maze habit in the white rat. IV. Vitamins B-complex, B₁, and B₂ (G). *J. comp. Psychol.*, 1939, 27, 211-214.—The subjects were 200 young rats divided by means of the split-litter technique into four groups. One group continued on a normal diet, while the other three were deprived, respectively, of vitamin B-complex, B₁, and B₂. A water maze was learned at 7 weeks and relearned at 13 weeks. A second maze was then learned. The most marked increases of errors, time, retracings, and trials above those for the normal group were evidenced for the B-complex and B₁ groups. Similar effects were noted for retention and for learning a new maze. "Vitamin B₁ deficiency in the diet of rats between two and six weeks after birth has a deteriorating effect upon their learning ability . . . this effect is much less marked than in the case of either B-complex or B₁ deficiency during the same period."—N. L. Munn (Vanderbilt).

4060. Razran, G. H. S. Studies in configural conditioning. VI. Comparative extinction and forgetting of pattern and of single-stimulus conditioning. *J. exp. Psychol.*, 1939, 24, 432-438.—Extinction and forgetting of salivary CR's to 26 patterns of stimuli and to the component stimuli of the patterns were studied in 32 adult human subjects. Extinction consisted of testing 20 non-reinforced trials on 2 successive days; forgetting consisted of testing after 1, 2, 4, 8, and 16 weeks. Subjective attitudes were ruled out in all cases. Both extinction and forgetting were much slower when the conditioned stimuli were patterns of stimuli than when they were components of these patterns. A lapse of 16 weeks resulted in nearly complete disappearance of CR's to single stimuli and in their reduction by two thirds to patterns of stimuli. 20 non-reinforced trials on two successive days abolished 85% of the CR's to single stimuli, but decreased the pattern CR's by only 14%. No definite relation between pattern properties and resistance to extinction and forgetting was established.—H. W. Karn (Pittsburgh).

4061. Razran, G. H. S. The nature of the extinctive process. *Psychol. Rev.*, 1939, 46, 246-297.—Extinction is the most unique characteristic of conditioning, and in comparing conditioning with other forms of learning its significance has been variously interpreted by different writers. The present article reviews and restates existing theories of extinction; brings together and re-aligns all the known behavioral facts of extinction; analyzes and evaluates the theories in the light of these facts; and from them attempts to evolve a synthetic and hierarchic working hypothesis of extinction. It is concluded that the factors which make up a complete extinction hierarchy are: (1) extinction response decrement; (2) extinction S-R decrement; (3) reverse conditioning; (4) inverse conditioning; (5) redirected conditioning; (6) attitudinal and affective extinctions and conditionings. Factor 5 is of significance only in a certain class of responses and conditions, and Factor 6 is of critical effectiveness only in CR extinctions of adult human subjects. The article also considers cases of failure of extinction to manifest itself, and the problem of extinction-like phenomena in other forms of behavior.—A. G. Bills (Cincinnati).

4062. Reynolds, H. E. Further disinhibition phenomena in the maze behavior of the white rat. *J. comp. Psychol.*, 1939, 27, 271-282.—Data are presented in support of Hull's deduction that a disturbing stimulus applied before a point of choice will lead to sudden entrance into a previously omitted blind. A modified Valentine maze was used. Shock and a black curtain were disinhibiting stimuli. Noise was not effective. The results are ambiguous with respect to Hull's second deduction, namely, that after removal of the disturbing situation the animal will revert to its accustomed use of the blind. When shock was used spontaneous recovery occurred, but more slowly than expected. However, use of a black curtain as the disinhibiting stimulus yielded data clearly in support of this deduction. According to the investigator, "maze learning possesses characteristics similar to those of the conditioned reflex, and therefore can be adequately explained by the conditioned reflex principles. The elimination of the blinds may be explained by the principle of inhibition; the sudden entrance into a blind previously eliminated by the principle of disinhibition, and the omission of the blind on the next trial by the principle of spontaneous recovery."—N. L. Munn (Vanderbilt).

4063. Roenau, E. [The building up of memory and the problem of the failure of memory.] *Z. ges. Neurol. Psychiat.*, 1938, 160, 411ff.

4064. Ross, V. R. Relationships between intelligence, scholastic achievement and musical talent. Sacramento, Calif.: Calif. Bur. Juv. Res., 1937. Pp. ix + 37.—The relationships among intelligence, musical talent, and scholastic achievement were studied by comparison of scores on the Terman group test of mental ability, the Seashore test of musical ability, and the Stanford achievement test,

form V, respectively. The pupils ranged from grades 5 to 12, and included some groups of Indian and Japanese children. Very low correlations were found between intelligence and musical talent and between scholastic achievement and musical talent. Pupils in the last two years of secondary school who elect music are found to be slightly superior in intelligence, and those whose scores indicated superior musical ability were found to be superior in intelligence and scholastic achievement, as compared with the general populations to which they belong. Deficiency in musical talent has a definite relation to inferiority in intelligence and scholastic achievement. Indian children were found to be in general inferior to white pupils of similar grades in the measures of musical talent. Japanese children compared favorably with the whites on the Seashore test at all grade levels.—D. Bailey (Mary Baldwin College).

4065. Sandulescu, M. Contributii la problema corelatiei dintre indicele cefalic si inteligenta. (Contributions to the problem of correlation between cephalic index and intelligence.) *Anal. Psihol.*, 1938, 5, 60-102.—4017 cases are studied. They are classified in four types: dolichocephalic, mesocephalic, brachycephalic, and hyperbrachycephalic. Dolichocephalic individuals seem to be more intelligent than other types, but the difference is very small. Men seem to be more intelligent than women, and urban people than rural people.—N. Marginean (Cluj, Rumania).

4066. Serebrenikov, V. S. [Materials on the problem of the identity of external with internal inhibition.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 170-173.—Three food CR's were established in a dog to a metronome of 120 beats per minute, the sound of a bell, and that of bubbling water. The CR's appeared to the 3 stimuli after 54, 13, and 5 trials respectively; they became stable after 115, 53, and 5 trials. A differential CR to a metronome of 60 beats was also formed after 20 trials. A comparison was then made between decreasing the CR to the bubbling water only by non-reinforcement, or internal inhibition, and decreasing the CR to the bell by a combination of external and internal inhibition—non-reinforcement plus the simultaneous application of a tone. The CR to the bell was extinguished in 5 trials and that to the bubbling water in 12 trials, despite the fact that the latter CR was originally larger in magnitude. Reconditioning was slow in both cases.—G. H. S. Razran (Columbia).

4067. Shastin, N. R. [The methodology of studying conditioned reflexes in children.] *Fiziol. Zh. S.S.S.R.*, 1938, 24, 1055-1062.—While the motor component of the food CR is more quickly conditioned and is less distractible, the secretory component is much more sensitive and much less under the control of verbal and voluntary behavior. A crucial experiment is cited in support. A food CR was formed in an 11-year-old girl by combining the food with the sound of the word "lastochka" (Russian for "swallow"—a bird; no phonotographic

relationship with anything connected with food or eating in that language) which was transmitted through ear-phones. The salivary CR was formed in 2 trials and the motor CR in 3. The word "kamen" (stone) and the letters ABV (the first 3 letters in the Russian alphabet) were then tried. A clear-cut differentiation in the salivation to the conditioned and the non-conditioned verbal stimuli was immediately shown, but the motor CR was generalized and continued to be given indiscriminately even after prolonged attempts at extinction. The child also failed to form a differential CR between metronomes of 150 and 50 beats per minute. Questioning revealed that the child was under the impression (hinted at by another girl) that she was to open her mouth whenever any stimulus was administered. This "set," however, interfered little with the secretory results.—G. H. S. Razran (Columbia).

4068. Steiner, R. *Praktische Ausbildung des Denkens*. (The practical culture of thought.) Dresden: E. Weise, 1939. Pp. 48. RM. 1.—R. R. Willoughby (Brown).

4069. Symonds, P. M. Criteria for the selection of pictures for the investigation of adolescent phantasies. *J. abnorm. soc. Psychol.*, 1939, 34, 271-274.—An analysis of the stories and pictures used for the investigation of phantasy revealed that those pictures are most serviceable which have a minimum of detail, are vague in theme, incomplete in content, and suggest characters with which those telling the stories can identify themselves.—C. H. Johnson (Portland, Ore.).

4070. Thouless, R. H. *How to think straight*. New York: Simon & Schuster, 1939. Pp. viii + 246. \$2.00.—This is a study of straight and crooked thinking utilizing illustrations from the American environment and constituting a text in applied logic. (For an earlier format, see VI: 2109.) The appendices cover: 34 dishonest tricks in argument and methods of overcoming them; a discussion illustrating crooked thinking; imaginary discussion on peace and war between a man and a woman; and some reasoning tests.—W. S. Hunter (Brown).

4071. Tilton, J. W. The effect of "right" and "wrong" upon the learning of nonsense syllables in multiple choice arrangement. *J. educ. Psychol.*, 1939, 30, 95-115.—Four experiments were conducted to determine the effect upon learning of the subject's awareness of the correctness and incorrectness of his responses. It was shown that the procedure, used in a former investigation by Thorndike, of assuming a base or zero by estimating how the subjects would have performed if they had not been told "right" or "wrong" was unjustified. Under the conditions of one of the present experiments knowledge of "right" contributed more than "wrong" by a difference which was about equal to its standard error, and the amount which "wrong" contributed to learning was at least 3 times its standard error.—R. M. Bellows (Maryland).

4072. Tuppa, K. *Intelligenz und Alkohol*. (Intelligence and alcohol.) *Wien. klin. Wschr.*, 1938,

51, Abt. 2, 1183-1187.—The intelligence of 583 Viennese pupils from the third grade onward was tested. Part came from a drinking quarter of the city, the others from a neighborhood relatively free from alcohol. The latter were decidedly superior.—P. L. Krieger (Leipzig).

4073. Usiyevich, M. A. [The function of the large cerebral hemispheres and the action of internal organs. III. The formation of conditioned reflexes and bile secretion.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 573-579.—The bile ducts of dogs were led outside by a Pavlov operation and the animals were given milk. After 600 cc. of milk the bile secretions averaged 16.3, 10, 9, and 4.5 cc. in 4 consecutive hours, with latencies of 7-8 minutes. Conditioned reflexes to a metronome of 120 beats, a "scratcher" of 24 vibrations per minute, and a differentiation to a metronome of 60 beats per minute were then formed with HCl as the conditioning stimulus. Applications of the conditioned stimuli reduced the bile secretions by 30% and distorted their regularities. The maxima of the secretions were shifted from the first 15 minutes to the second hour, and in some cases even to the third hour. The latencies were also lengthened. The differential or negative stimuli of the CR's were more effective than the positive stimuli. The effect is explained by the inhibition which the conditioned stimuli exert upon the gastric secretions, thus preventing the food from passing into the duodenum where, according to previous experiments, the food must be for the bile to be secreted.—G. H. S. Razran (Columbia).

4074. [Various.] *Neuvième semaine internationale de synthèse; l'invention.* (The ninth international synthesis week: invention.) Paris: Alcan, 1938. Pp. 214. 25 fr.—The following subjects were discussed at this international reunion of the Centre de Synthèse: (1) *The psychological mechanism of invention*, which included papers by C. Blondel on disordered invention (pathological dream states) and by E. Claparède on directed invention; (2) *The modalities of invention*, which included a paper by J. Hadamard on scientific invention as evidenced in mathematics, a theoretical paper by L. de Broglie on the experimental sciences, one by E. Bauer on experimentation in the sciences, and esthetic invention by P. Valéry; and (3) *Life as invention*, by E. Guyenot.—G. Goldman (Sorbonne).

4075. Violet, —, & Roudinesco, —. *Recherches sur le niveau intellectuel d'écopliers parisiens.* (Studies on the intelligence of Paris students.) *Groupement franç. Etud. Neuro-Psychopath. infant.*, 1939, 2, No. 1, 16-22.—The authors give their data obtained from an application of the Simon group test to 634 girls and 190 boys between the ages of 9 and 13, indicating the practical conclusions which they were able to draw from such a study with respect to a greater homogeneity in school classes.—G. Goldman (Sorbonne).

4076. Wild, K. W. *Intuition.* Cambridge: Univ. Press; New York: Macmillan, 1938. Pp. ix + 240.

\$3.00.—The author examines what "intuition" means in Bergson, Spinoza, Croce, Jung, Whitehead. She then considers how intuition as so conceived enters into religion, moral consciousness, esthetic consciousness; into the functioning of the minds of geniuses; and into recognition of the final values involved in teleological action. The following definition is proposed: "An intuition is an immediate awareness by a subject of some particular entity, without such aid from the senses or from reason as would account for that awareness." Her chief positive conclusions are that "There is undoubtedly an intuitive method and immediate intuitive awareness on which reason and all other forms of knowing are dependent"; that intuition is not alternative to reason, or necessarily dependent on reason, or antagonistic to reason; that "the object of every intuition has some vital significance for the intuiting subject"; that "the isolated individuality of the object combined with the immediate nature of the knowing found in intuition gives a peculiar feeling of unity between subject and object"; that intuitive knowledge is reliable, but may be erroneously construed; that it is private and not attainable at will; and that there is no sure method of distinguishing the ideas acquired by intuition from those acquired by reason or perception.—C. J. Ducasse (Brown).

[See also abstracts 3947, 3962, 3990, 4004, 4139, 4155, 4299, 4397, 4407, 4408, 4414, 4416, 4419, 4425.]

MOTOR AND GLANDULAR RESPONSES (incl. Emotion, Sleep)

4077. Bielschowsky, A. *Lectures on motor anomalies, IX. Oculomotor-nerve paralysis and ophthalmoplegias.* *Amer. J. Ophthal.*, 1939, 22, 484-498.—D. Shad (New York City).

4078. Borosini, A. v. *Die Händigkeit.* (Handedness.) *Fortschr. Med.*, 1937, 55, 49-56.—The better eye does not produce handedness, but both result from the same cause. The nose, ear, and whole half of the body are better developed on the side of the preferred hand. Cranial and facial asymmetries, the different development of the cerebral hemispheres, handedness, and especially the disadvantage of the right hemisphere go back to the unfavorable second fetal position in the last 2 or 3 months of pregnancy among civilized peoples. Perhaps the reason why anthropoids and primitive peoples are ambidextrous is that delivery occurs in the kneeling or squatting position, which affords less opportunity for injury of the fetal brain. A left-handed child should be trained from the beginning to use the right hand, and vice versa. This would produce a better development of the memory and speech centers.—P. L. Krieger (Leipzig).

4079. Bozler, E. *Muscle.* *Ann. Rev. Physiol.*, 1939, 1, 217-234.—A review of advances in the field for 1936-38.—W. S. Hunter (Brown).

4080. Bujas, Z. *Le rétrécissement du champ visuel comme test de fatigue.* (Narrowing of the visual field as a test of fatigue.) *Année psychol.*, 1938, 38, 186-197.—Following mental work the visual field is found to be more restricted than normal. Up to a certain point the degree of narrowing varies clearly with the amount of work done and with the subjective impression of fatigue. After short periods of work the return to normal is first rapid and then more slow; after work of longer duration the narrowing persists for a considerable time, and there may be even further decrease. Rest causes a return to normal, with an occasional slight enlargement of the visual field beyond the normal limits. Measures of dispersion are larger after work, the more so the longer the period of work.—F. W. Finger (Brown).

4081. Burn, J. H. *The action of drugs in muscular fatigue.* *Brit. med. J.*, 1939, Part 1, 547-550.—W. J. Brogden (Johns Hopkins).

4082. Christensen, E. H., & Hansen, O. *Hypoglykämie, Arbeitsfähigkeit und Ermüdung.* (Hypoglycemia, working capacity, and fatigue.) *Skand. Arch. Physiol.*, 1939, 81, 172-179.—In hypoglycemia, consumption of sugar improves working capacity greatly. The favorable effect, however, does not depend on a greater K-Na combustion in the muscle, but on the higher percentage of blood sugar, and stands in relationship to the disappearance of the hypoglycemic symptoms of cerebral origin.—P. L. Krieger (Leipzig).

4083. Cornsweet, A. C. *Recovery sequence after anesthetization. III. Ethyl alcohol.* *J. comp. Psychol.*, 1939, 27, 165-173.—Rats were placed in a glass chamber until anesthetized by alcohol vapor. Behavior during induction and recovery was recorded in detail. Loss of motor function was caudo-cephalad and recovery cephalo-caudad.—N. L. Munn (Vanderbilt).

4084. Dill, D. B. *Applied physiology.* *Ann. Rev. Physiol.*, 1939, 1, 551-576.—A review of recent literature on muscular exercise, effects of high temperature, and low and high partial pressures of oxygen.—W. S. Hunter (Brown).

4085. Doupe, J., Newman, H. W., & Wilkins, R. W. *A method for the continuous recording of systolic arterial pressure in man.* *J. Physiol.*, 1939, 95, 239-243.—M. A. Rubin (Worcester State Hospital).

4086. Evans, H. M. *Endocrine glands: gonads, pituitary, and adrenals.* *Ann. Rev. Physiol.*, 1939, 1, 577-652.—A review of recent literature.—W. S. Hunter (Brown).

4087. Freeman, G. L. *Postural tensions and the conflict situation.* *Psychol. Rev.*, 1939, 46, 226-240.—It is proposed that many of the personality maladjustments found in situations of conflict may be studied experimentally as a relationship between the tonic or postural segment of response and its phasic or kinetic aspect. Evidence is given to show that the character of overt reaction is largely deter-

mined by the background of excitation or pattern of postural tension met by the incoming stimulus. The role of postural tension in conflict can be studied through an experimentally induced conflict situation such as bladder distension with inhibition of micturition. Certain tentative hypotheses are advanced: (1) The organism is a dual mechanism in which tonic and phasic segments of response are interdependent, the former supplying the energetics and the latter the direction and control of activity. (2) A person's basic level of postural tension must be raised or lowered to enable the phasic reaction system to meet appropriate goals. If frustration is encountered, the heightened postural activity exerts a pressure which must be relieved by appropriate phasic response. If postural tensions exceed appropriate levels, breakdown and disorganization of higher order responses occur. This interpretation is offered in place of the mental dynamisms suggested by Freud, Lewin, and others.—A. G. Bills (Cincinnati).

4088. Frey, E. *Die Förderung der Muskelzuckung durch Alkohol als Erholungshemmung.* (The promotion of muscle twitching by alcohol retards recovery.) *Arch. exp. Path. Pharmacol.*, 1939, 191, 621-627.—After alcohol intake the recovery of the muscle, production of new usable material, and tetanus are affected. Continued disturbances of recovery due to alcohol produce a tendency to contracture and paralysis (vegetative narcosis).—P. L. Krieger (Leipzig).

4089. Garibyan, R. B. [Defense reactions of old dogs.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 243-251.—A comparison was made between the reactions of old and young dogs to HCl and to pricks by a needle, measured by a mercury algometer. 10 cc. of 0.3% of HCl produced very little saliva in the old dogs, and most of it came from the parotid glands, the submaxillary and sublingual glands being practically inactive. However, when the old dogs were shocked simultaneously with the introduction of the acid, their reactions equalled those of the young. The differences in reactions to the needle-pricks were primarily in thresholds and in responses to weak stimuli above the threshold. The threshold for the young was 40 mm. pressure and for the old 100 mm., but with 200 mm. there were no differences between the response magnitudes of the old and the young. There were also differences in the nature of the responses, which in the younger animals tended to be more local and in the older more generalized and gross. After a few trials the young dogs would run away from the laboratory, but the old ones remained apathetic; but in class demonstrations the old animals would become as much disturbed as the young.—G. H. S. Razran (Columbia).

4090. Gray, J. *Studies in animal locomotion: VIII. The kinetics of locomotion of Nereis diversicolor.* *J. exp. Biol.*, 1939, 16, 9-17.—Ambulation is effected through the activity of the parapodia and the longitudinal muscles of the worm, and is found to involve: (1) the spread, at a rapid rate,

of an ambulatory pattern over the body segments, proceeding from the head towards the tail, during forward progression; (2) the transmission of this pattern, at a relatively slow rate, in an anterior direction. During rapid ambulation the activity of the parapodia is co-ordinated with that of the longitudinal muscles and progression is largely attributable to these muscles. One side of each body segment being fixed to the substrate when the underlying longitudinal muscles are relaxed, the animal consequently progresses in the direction in which the muscular waves traverse the body, and not, as with the earthworm, in the opposite direction. The movements executed in active swimming are essentially the same as those seen during rapid ambulation, but the wave length, frequency, and amplitude of the undulatory waves are greatly increased, particularly in the anterior of the body. The rate of progression is small compared with the frequency and velocity at which the waves pass over the longitudinal muscles. 3 references.—C. K. Trueblood (Harvard).

4091. Gray, J., Lissmann, H. W., & Pumphrey, R. J. The mechanism of locomotion in the leech (*Hirudo medicinalis* Ray). *J. exp. Biol.*, 1938, 15, 408-430.—Types of locomotion displayed by the intact animal are found to depend on the presence or absence of particular patterns of exteroceptive stimulation reaching the nerve cord from the suckers or ventral body surface. If such patterns are present the animal can walk but not swim; if they are absent the animal can swim but not walk. Frequency of ambulating rhythm is found to be determined by rhythmical adhesion of the suckers, occurring only when the suckers are protruded. Protrusion of the suckers depends on isotonic contraction of the body muscles. It is suggested that the normal ambulatory rhythm is best regarded as a closed chain of peripheral reflexes. The transmission of waves of longitudinal and circular contraction during ambulation is found to be independent of the integrity of considerable regions of the somatic musculature. Decapitated leeches exhibit ambulatory rhythm only in response to strong stimulation. Both intact and decapitated specimens swim readily when freed from tactile stimulation. The whole nerve cord exhibits a marked electrical rhythm so long as it is in organic connection with a limited region of the body displaying mechanical swimming movements, but no such rhythm was detected in the isolated central nervous system. 10 references.—C. K. Trueblood (Harvard).

4092. Hasegawa, T. Experimentelle Studien über den peripheren Lagenystagmus. (Experimental studies of the peripheral posture nystagmus.) *Msschr. Ohrenheilk.*, 1939, 73, 19-23.—Injection of a small dose of a heterotone solution or diluted poisonous substances into the oval window of a rabbit's ear produced posture nystagmus. Its probable cause is the small difference in tonus between the two labyrinths, which remains within the limits of the central accommodatory ability as long as the head

remains in the normal position.—P. L. Krieger (Leipzig).

4093. Himwich, H. E., Frostig, J. P., Fazekas, J. F., Hoagland, H., & Hadidian, Z. Clinical, electro-encephalographic, and biochemical changes during insulin hypoglycemia. *Proc. Soc. exp. Biol.*, N. Y., 1939, 40, 401-402.—5 patients were observed before and during the development of hypoglycemia from insulin injection. Brain waves were recorded, and samples of blood analyzed for oxygen and glucose to estimate cerebral metabolism. Results show that (1) there is a progressive decrease in cerebral metabolism as hypoglycemia develops, (2) the decrease in oxygen consumption may be correlated with a lessening frequency and final disappearance of alpha waves as well as augmentation of the delta index, (3) progress of symptoms is associated with ever-deepening depression of cerebral metabolism.—H. Peak (Randolph-Macon).

4094. Jeju, V. G. Dexteritatea manuala in tipurile de personalitate. (Manual dexterity in personality types.) *Anal. Psihol.*, 1938, 5, 329-340.—122 girls and 138 boys were examined with the dextermeter elaborated by the National Institute of Industrial Psychology in London. The subjects were also examined with an introversion-extraversion test. The ambiverts show a larger variation in dexterity than the introverts or extraverts; their dexterity is also higher. The time necessary for the test varies from 550 to 990 seconds with the girls and from 600 to 980 seconds with the boys. Dexterity seem to vary according to Kretschmer types.—N. Marginean (Cluj, Rumania).

4095. Kleinholz, L. H. Studies in reptilian color changes: II. The pituitary and adrenal glands in the regulation of the melanophores of *Anolis carolinensis*. *J. exp. Biol.*, 1938, 15, 474-489.—This paper reports experimentally induced color changes in the lizard *Anolis carolinensis*. Normally the animal becomes dark brown on a light-absorbing ground and bright green on a light-dispersing ground, the changes occurring through dispersion or concentration of pigment within the melanophores. Blinded lizards failed to change with changes of ground, but became brown when kept continuously in light, and green in darkness. Hypophysectomy was found to result in permanent pallor, although the brown color could be elicited in hypophysectomized animals by injection with suitable pituitary extracts. Denervated areas of skin were found to undergo normal color changes, while electrical stimulation of hypophysectomized animals evoked a mottled pattern. Mottling is considered to be under hormonal, not nervous regulation. 27 references.—C. K. Trueblood (Harvard).

4096. Kleinholz, L. H. Studies in reptilian color changes: III. Control of the light phase and behavior of isolated skin. *J. exp. Biol.*, 1938, 15, 492-499.—This article continues the report of experimentally induced color changes in the lizard *Anolis carolinensis*, described in the preceding paper. Described here are factors regulating the concentration of

melanophore pigment and the chromatic behavior of isolated skin. Melanophore contraction is held not to be produced through a direct nervous agency, since in all cases the melanophores in denervated as well as those in normal areas of the body were contracted by electrical stimulation. Nor are the adrenal glands found necessary in mediating the light state, since the chromatic responses of adrenalectomized animals to background changes did not differ from those of normal animals. Concentrations of melanophore pigment are found due to disappearance of the pigment-dispersing hormone from the circulation of the animal. Intact skin in hypophysectomized lizards is found not to respond directly to light, but isolated skin darkens slightly in bright sunlight and becomes green again in diffuse light. Isolated skin floated in solutions of pituitary extract becomes dark; it shows the mottling reaction in solutions of adrenalin. 20 references.—C. K. Trueblood (Harvard).

4097. Knipp, C. T. On the path of the firefly while periodically flashing. *Science*, 1939, 89, 386-387.—According to the writer's observations the firefly pursues a straight path, if viewed from above. From a side view, the course of flight is a straight line punctuated by dips every 3-5 meters, taking place whenever a flash occurs.—F. A. Mote, Jr. (Brown).

4098. Koch, A. Über Arbeit bei Sauerstoffmangel. (Work under decreased oxygen pressure.) *Luftfahrtmedizin*, 1939, 3, 97-103.—As measured by a spiograph and Knipping's ergometer, working capacity increases at high altitudes. With diminished amounts of oxygen ($O_2 = 14\%$) and simultaneous work (100, 130, 150 watts), characteristic groups can be distinguished.—P. L. Krieger (Leipzig).

4099. Kvasnitsky, A. V. [Buccal fistulae as a method of studying the action of the parotid glands in pigs.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 375-383.—Buccal fistulae permit careful measurements of the action of the parotid glands in pigs. In these animals the administration of food produces more saliva and shorter latent periods than the injections of acids. The glands are asymmetrical in action, the asymmetry depending upon the kind of food and acid. HCl produced more saliva from the left gland, but acetic, formic, and lactic acids activated more the right gland (5% concentration in all cases). Water is not a stimulus for salivation or inhibition of salivation except when it directly interferes with the action of other stimuli.—G. H. S. Razran (Columbia).

4100. Lindsley, D. B., & Hunter, W. S. A note on polarity potentials from the human eye. *Proc. Nat. Acad. Sci., Wash.*, 1939, 25, 180-183.—Records obtained by simultaneous multiple recording from four pairs of electrodes attached to the surface of the skin about the orbit are presented and discussed in some detail. These records "support very conclusively the view that such potential differences arise from the polarity of the eye (negative in the

back of the bulbus and positive in the front) rather than from the admitted activity of the extra-ocular muscles in turning the bulbus and in maintaining the resulting fixations."—D. E. Smith (Alberta).

4101. Miles, W. R. Reliability of measurements of the steady polarity potential of the eye. *Proc. Nat. Acad. Sci., Wash.*, 1939, 25, 128-137.—Data are presented bearing on five phases of the ocular polarity problem: (1) coefficients of correlation between measurements on two different days from various electrode combinations for 56 subjects indicate that the ocular polarity potential measurement is a fairly reliable one; (2) rather marked individual differences were found; (3) at present there is no indication that chronological age, of itself, exercises any great influence on the eye's steady potential; (4) the steady potential of the eye gives no indication of correlating with the potentials of the tissues surrounding the eye; (5) interrelations of values for polarity potentials obtained from various electrode leads appear to be quite constant in normal subjects.—D. E. Smith (Alberta).

4102. Rau, P. The instinct of animosity and tolerance in queen *Polistes* wasps. *J. comp. Psychol.*, 1939, 27, 259-269.—Several experiments indicate that *Polistes* queens are hostile to alien queens and friendly to members of their own species, that *Pallipes* queens are hostile to other *Pallipes* queens and also to alien queens, and that a *Polistes* queen may be passive and the workers hostile to aliens. Animosity is believed to be a "deferred instinct" the arousal of which is related to maternal interests.—N. L. Munn (Vanderbilt).

4103. Romich, S., & Köhler, M. Konstitution und Menstruation. (Constitution and menstruation.) *Zbl. Gynäk.*, 1938, 62, 1087-1089.—Women may possess either a progressive or a conservative constitution, which present different motor aspects. In the former type the period between menstruations is shorter but the duration of individual menses longer. This type also produces more uninduced abortions and fewer children.—P. L. Krieger (Leipzig).

4104. Roudier, K. D. The action of certain drugs on the insect central nervous system. *Biol. Bull. Woods Hole*, 1939, 76, 183-189.—Adult praying mantids and cockroaches were injected in the head with solutions of various drugs, and the changes in general reflex activity were recorded. Strychnine caused a decrease in reflex activity in both insects, large doses causing complete cessation of antennal and mouth-part movements. This is contrary to its effect on the vertebrate spinal cord. Pilocarpine and eserine bring about an increase in mouth-part and antennal movement, head movement, and extensor leg tonus, and produce spasmodic twitching and general contraction of the body musculature. In the case of pilocarpine this effect is prevented by atropin. Acetylcholine alone has no detectable effect upon activity. Its effect, if any, when injected with eserine, is masked by the excitatory effect of

eserine. It is concluded that, in their reaction to drugs, the nervous systems of the two insects studied show little similarity to the vertebrate central nervous system, but considerable similarity to the vertebrate parasympathetic system.—*W. J. Brogden* (Johns Hopkins).

4105. Saprokhin, M. I. [Abdominal temperature of dogs under muscular exertion.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 424-427.—Three dogs with gastric fistulae were made to run for 30 minutes at the rate of 9 kilometers per hour and their abdominal temperatures and secretions were measured. The temperatures rose by 2° C. and the secretions were diminished. Both returned to normal after 50-120 hours.—*G. H. S. Razran* (Columbia).

4106. Schiffer, K. H. Chronaxie und Zuckungsablauf beim menschlichen Muskel. (Chronaxy and the course of contraction in human muscle.) *Z. ges. Neurol. Psychiat.*, 1937, 159, 24-26.

4107. Shulman, E. O. [Changes in the nervous system under the influence of high external temperature.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 451-461.—The knee jerk, the galvanic skin reflex, and eye-hand co-ordination (Piorkovsky's apparatus) were investigated in 9 workers of an electrical plant in which the temperature ranged from 38° to 50° C. (humidity 24-76%); control subjects working in plants with temperatures of 25-29° C. were also used. As the working day progressed the threshold for the knee jerk was raised in all subjects, but in the experimental subjects the Wedensky phenomenon was manifested. Toward the middle of the day the magnitude of the response became independent of the magnitude of the stimulus, and at the end of the day weak stimuli produced larger responses than strong stimuli. This was manifested in 104 of 137 trials with the experimental group and in only 3 of 24 in the control group. The experimental group showed also much less skin resistance, as well as greater speed and less accuracy in eye-hand co-ordination.—*G. H. S. Razran* (Columbia).

4108. Smyth, D. H. The central and reflex control of respiration in the frog. *J. Physiol.*, 1939, 95, 305-327.—The respiratory center of the frog is not fundamentally different from that of mammals.—*M. A. Rubin* (Worcester State Hospital).

4109. Steiniger, F. Die genetische, tierpsychologische und ökologische Seite der Mimikry. (Mimicry from the viewpoints of genetics, animal psychology and ecology.) *Z. angew. Ent.*, 1938, 25, 461-471.—Many cases of apparent mimicry are at best only working hypotheses. The genetic problem is more important than the morphologic. On the other hand, the question of the value and ecological meaning of mimicry belongs to animal psychology.—*P. L. Krieger* (Leipzig).

4110. Stewart-Wallace, A. M. An unusual case of the grasp reflex, with some observations on the volitional and reflex components. *J. Neurol. Psychiat.*, 1939, 2, 149-153.—*W. J. Brogden* (Johns Hopkins).

4111. Stone, C. P. Physiological psychology: II. Miscellaneous topics. *Ann. Rev. Physiol.*, 1939, 1, 487-502.—A review of recent studies on development of behavior, brain mechanisms, behavior related to nutrition, drive and motivation, and mental work and efficiency.—*W. S. Hunter* (Brown).

4112. Thomas, M. Un fil de soie. (A silk thread.) In Various, *Festschrift, Pr Embrik Strand*. Riga: 1937. Vol. 2. Pp. 633-638.—A discussion of the factors influencing the construction of the thread connecting the center of the spider's web and the nest. Instinct is "the potential hereditary knowledge of a specific plan of life."—(Courtesy *Année psychol.*).

4113. Troitsky, I. A. [The secretory mechanisms of the parotid gland in horses.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 428-434.—The parotid duct of a horse was led outside by a Pavlov operation and the animal's salivation was measured in regular fashion. HCl, NaOH, pepper, sand, hay, oats, pollard, and water were tested. All but the water produced parotid secretion, the order for the edibles being hay, oats, and pollard. Chewing alone and even showing food were ineffective. Two alternating phases of salivation were noted, a high and a low. During the first phase 30 gm. of hay elicited 90-117 cc. of saliva, 30 gm. of oats 23-57 cc., and 30 gm. of pollard 26-35 cc.; during the low phase the hay evoked 18-27 cc. and the oats and the pollard only a few drops.—*G. H. S. Razran* (Columbia).

4114. Verlaine, L. La simulation de la mort chez les insectes. (Death simulation in insects.) *Bull. Soc. Sci. Liège*, 1937, 6-7, 209-212.—The notion of "protective immobilization" (Piéron) may be more satisfying than that of "simulation of death," but it does not appear to cover all cases observed in insects. Rabaud's term "reflex immobilization" may perhaps be more suitable, but there is danger of exaggerating the simplicity of the reaction. In certain forms some irritability is preserved, and such activities as drinking may take place.—(Courtesy *Année psychol.*).

4115. Waterman, T. H., Nunnmacher, R. F., Chace, F. A., & Clarke, G. L. Diurnal vertical migrations of deep-water plankton. *Biol. Bull. Woods Hole*, 1939, 76, 256-279.—*W. J. Brogden* (Johns Hopkins).

4116. Windle, W. F., & Fitzgerald, J. E. Development of spinal reflex mechanism in human embryos. *J. comp. Neurol.*, 1937, 67, 493 ff.—(*Child Developm. Abstr.* XIII: 394).

4117. Wyss, W. H. v. Grundformen der Affektivität. Die Zustandsgefühle beim gesunden und kranken Menschen. (Basic forms of affectivity. Conditions and feelings in normal and diseased persons.) *Abh. Neurol. Psychiat.*, 1938, H. 83. Pp. 104.

[See also abstracts 3933, 3938, 3944, 3948, 3949, 3952, 3960, 3963, 3978, 3988, 3989, 3996, 4001, 4013, 4016, 4036, 4046, 4073, 4121, 4128, 4129, 4165, 4187, 4190, 4299, 4330, 4371, 4399, 4411.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

4118. Bak, R. Regression of ego-orientation and libido in schizophrenia. *Int. J. Psycho-Anal.*, 1939, 20, 64-71.—The withdrawal of cathexis from objects is a minor part in the psychotic process, the larger part being reconstruction, which comes about largely through the overcoming of subordinate forms of the orientation of perception. The author then proceeds to discuss thermic orientation as the prototype of exchange of cathexis between ego and object, and the possible part that thermic orientation plays in the tendency toward unification and in the libidinal characteristics of the flowing over of cathexis, illustrating his points by case material.—M. H. Erickson (Eloise Hospital).

4119. Beth, K., *Parapsychologisches zur Religionspsychologie*. (Contributions of parapsychology to the psychology of religion.) *Z. ReligPsychol.*, 1938, 11, 196-212.—The author gives Schmeing credit for his thorough discussion of the psychological side of visionary experiences, but argues that "second sight" is really on a different plane from eidetic capacity. He is willing to admit the spiritistic theory as a working hypothesis, but insists that biological and cosmic explanations should be used as long as possible in connection with parapsychic phenomena. Such explanations involve the rhythmic general relationships of all things mentally and physically alive on the basis of the constantly recurring connections among the living matter of the known cosmos.—P. L. Krieger (Leipzig).

4120. Deutsch, H. A discussion of certain forms of resistance. *Int. J. Psycho-Anal.*, 1939, 20, 72-83.—Resistances developed as defense mechanisms may be classified as intellectual resistances, transference resistances, and resistances connected with the recollection of infantile material. Discussion is then given of the intellectual type of resistance, which may be that of the highly intelligent person dealing with things at a strictly intellectual level; that of the obsessional neurotic patient, using intelligence as a foil; or that of patients blocked emotionally and dependent upon intellectuality as the only means of self-expression. Discussion of these various points is offered and illustrated directly by case material.—M. H. Erickson (Eloise Hospital).

4121. Doupe, J., Miller, W. R., & Kellar, W. K. Vasomotor reactions in the hypnotic state. *J. Neurol. Psychiat.*, 1939, 2, 97-106.—The vasomotor response of the vascular bed of the fingers to a pinprick or to a hot or cold stimulus was measured in terms of the volume of the digits. In 11 experiments on 5 subjects under hypnosis, one arm or leg was rendered analgesic by suggestion. Stimulation of the analgesic limb produced a degree of vasoconstriction which was significantly less than that evoked by similar stimulation of the normal limb. The state of the cutaneous blood vessels could not be altered by hypnotic suggestion, except in association with induced emotional states.—W. J. Brogden (Johns Hopkins).

4122. Goldney, K. M. A case of purported spirit-communication due actually to sub-conscious or trance memory powers. *Proc. Soc. psych. Res., Lond.*, 1939, 45, 210-216.—A "sitter" accepted as true for him statements by a clairvoyante, though in fact none of the facts applied. A year and nine months later the same clairvoyante made the same false references in offering information to the same sitter.—J. G. Pratt (Duke).

4123. Gramzow, O. *Hypnose und Suggestion. Ihre Vorbedingungen und Wirkungen*. (Hypnosis and suggestion. Their conditions and effects.) Schildow: Falken-Verl., 1939. Pp. 74. RM. 1.80.

4124. Herbert, C. V. C. Short exposure photographs of a jumping model. *Proc. Soc. psych. Res., Lond.*, 1939, 45, 196-198.—The report describes a procedure for photography by flash bulbs, and presents five photographs of a jumping model in the air during jumps. The results are offered for comparison with pictures of so-called levitations.—J. G. Pratt (Duke).

4125. Herbert, C. V. C. A preliminary investigation of the platform clairvoyante Mrs. Helen Hughes. *Proc. Soc. psych. Res., Lond.*, 1939, 45, 199-209.—The clairvoyante investigated operates by conveying information, in the course of public conversation, which the member of the audience addressed frequently considers accurate and unusual. The results are of sufficient interest for the investigator to lead him to suggest further studies of this kind.—J. G. Pratt (Duke).

4126. Husemann, F. *Vom Bild und Sinn des Todes. Entwurf einer geisteswissenschaftliche orientierten Geschichte, Physiologie und Psychologie des Todesproblems*. (The picture and sense of death. A sketch of a mentally oriented history, physiology, and psychology of the problem of death.) Dresden: E. Weise, 1938. Pp. 215. RM. 6.-.

4127. Kamm, B. Resistance problems. *Bull. Menninger Clin.*, 1938, 2, 161-171.—Three analytic patients—a stutterer, a schizophrenic, and an alcoholic—exhibited severe character disorders with the inability to maintain any consistent relation with anybody or anything. This difficulty was reproduced in the analysis itself. They used the analysis only for their narcissistic aims and fought every attempt to break through their isolation. They feigned obedience but actually carried on sabotage. This necessitated an increased analytical emphasis, especially during the initial period, upon the negative transference. It had to be demonstrated to the patients how their unconscious aggressions hindered analysis and were repeated automatically in many different details of their daily behavior. The author shows how this was done in each of the three cases.—W. A. Varvel (Kansas).

4128. Levin, S. L., & Egolinsky, I. A. [The effect of cortical functions upon energy changes in basal metabolism.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 979-992.—The effect of various hypnotic suggestions upon lung ventilation, oxygen consumption, pulse rate, and other indices of energy changes during

work and rest was studied in 3 subjects, 12, 14, and 17 years of age. The work consisted of pedalling a special form of a stationary bicycle at a rate that would equal 1500 meters in 3 minutes, and the energy changes under rest, rest under hypnosis, work, work under hypnosis, resting under hypnosis with suggestion of work, and working under hypnosis with suggestion of rest, were compared. Many trials were used and the experiment was very carefully conducted. The following are the average results for ventilation, oxygen consumption, and pulse rate for the 6 conditions respectively: 6.2 liters, 262 cc., 75; 5.7, 239, 75; 15.7, 735, 92; 19.1, 867, 99.5; 14.5, 331, 88; 17.0, 824, 106. The most pronounced effect of hypnosis was thus the change in lung ventilation when the subjects were resting but given suggestions of work, the ventilations equalling those of actual work. The changes in oxygen consumption were much smaller and hypnosis was ineffective when the subjects were working and suggestions of rest were impressed. Work under hypnosis with no special suggestions was the most energy-consuming of all conditions.—*G. H. S. Razran* (Columbia).

4129. Nemtsova, O. L., & Shatenstein, D. I. [The effect of the central nervous system upon some physiological processes during work.] *Fiziol. Zh. S.S.S.R.*, 1936, 20, 581-593.—The effect of suggestion, given during hypnosis and post-hypnotically, upon basal metabolism during work and rest was studied in 4 subjects. The subjects were 2 males, 22 years of age, and 2 females, one 28 and one 48 years, and the work consisted of raising and lowering 15.5 kg. weights through a distance of half a meter, 20 times per minute (for the older female it was 10 kg. and 16 times). The suggestions were that the subjects were raising weights of 300 gm. and of 30 kg.; the same suggestions were also given when the subjects were resting. The ventilation of the lungs during work without suggestions ranged from 13.69 to 22.88 liters and the oxygen consumption from 610 to 929 cc. per minute. Upon the suggestions of light work the ventilation and the oxygen consumption decreased 20-30%, while the suggestions of heavy work increased both about 50%. During rest the ventilation averaged 4.35 liters and the oxygen consumption 177 cc. The suggestion of light work increased the ventilation to 11.27 liters and the oxygen consumption 320 cc. per minute, while the suggestion of heavy work raised the former to 14.5 liters and the latter to 409 cc. 31 trials were taken, and the subjects' normal "coefficient of useful work" ranged from 0.80 to 0.95.—*G. H. S. Razran* (Columbia).

4130. Poortman, J. J. *Drei Vorträge über Philosophie und Parapsychologie.* (Three lectures on philosophy and parapsychology.) Leiden: Sijthoff, 1939. Pp. 77. RM. 2.50.

4131. Schönberger, S. A dream of Descartes: reflections on the unconscious determinants of the sciences. *Int. J. Psycho-Anal.*, 1939, 20, 43-57.—The author gives a brief statement of the content of 3 dreams Descartes relates in his work entitled

"Olympica," and these dreams are then discussed for their hypothetical significances as reflected in the history of Descartes' work. The author concludes that all 3 dreams reflect an effort at re-constitution of the super-ego as identified with an object once desired to be destroyed, and he feels that the main-spring of scientific thought "is the striving to regain possession of the tender mother whom everyone is destined to lose in the course of his development and whose death must have been for Descartes, then a child in his second year, the supreme tragedy of his life."—*M. H. Erickson* (Eloise Hospital).

[See also abstracts 4190, 4223, 4236, 4247, 4294, 4395, 4397.]

FUNCTIONAL DISORDERS

4132. Abély, X., Bouvet, —, & Carrère, —. *Pseudo-amnésies rétrogrades totales.* (Total retrograde pseudo-amnesia.) *Ann. méd.-psychol.*, 1939, 97, Part, 1, 411-418.—Two cases are presented in which the patient had reasons for wishing to escape from difficult situations, so claimed to remember nothing personal. In such cases as these recovery is made possible when they can come back honorably and have their conflicts resolved.—*M. B. Mitchell* (Psychopathic Hospital, State University of Iowa).

4133. Arthur, G. Tutoring as therapy. *Amer. J. Orthopsychiat.*, 1939, 9, 179-186.—5 cases are reported, showing that tutoring has a therapeutic effect on children in whom educational maladjustment is primary to behavior difficulties, and on children who are not able (or whose parents are not able) to accept direct psychiatric help.—*R. E. Perl* (New York City).

4134. Bersot, H., & Hareven, M. *Aux confins du somatique et du psychique.* (The connections between the somatic and the psychic domains.) *Evolut. psychiat.*, 1938, No. 4, 35-46.—The authors report a case of schizophrenia in which psychotherapy both accompanied and followed the insulin therapy and gave very positive results.—*G. Goldman* (Sorbonne).

4135. Bokemeyer, H. *Die biologische Leukozytenkurve und ihre Veränderungen bei Schwachsinnigen.* (The biological leucocyte curve and its alterations in the feeble-minded.) Münster: Bröcker, 1938. Pp. 18.

4136. Brissot, M., & Gravejal, E. *Cyclothymie et schizophrénie.* (Cyclothymia and schizophrenia.) *Groupement franç. Etud. Neuro-Psychopath. infan.*, 1939, 2, No. 1, 1-16.—*G. Goldman* (Sorbonne).

4137. Brown, A. W., Bronstein, I. P., & Kraines, R. Hypothyroidism and cretinism in childhood: VI. Influence of thyroid therapy on mental growth. *Amer. J. Dis. Child.*, 1939, 57, 517-523.—Intelligence tests were given to 29 cretins and 4 "juvenile hyperthyroid" children who were being actively treated with thyroid, over a period of from one to seven years. Treatment with thyroid brought an increase in IQ, the increase being greatest for those who

began treatment early. Even with treatment most of the children remained severely retarded, having IQ's below 70. The chances are that at maturity their mental level will not be above 10 or 11 years. When on successive examinations mental ages are plotted in Heinis mental-growth units, the curves appear to be of the same general shape as the curve for the average child except that they are at a lower level. Examination of siblings indicates that the cretins did not come from families of low intellectual status.—W. J. Brogden (Johns Hopkins).

4138. Burrow, T. The economic factor in disorders of behavior. *Amer. J. Orthopsychiat.*, 1939, 9, 102-109.—The factor of false affects is the common denominator of our conflicting systems of therapy on the one hand and the conflict in politics and economics on the other. The author studied eye movements and respiration under conditions of normal attention (the sphere of the organism's interaction with the environment through the agency of social symbols and ideas) and under conditions of cotention (having to do with the organism's relational physiology and providing for the body's biological needs). He found that the organism reacts differently depending upon whether it is responding directly or indirectly to its environment. He concludes that our social disorders are organismic and phyletic and must be approached medically.—R. E. Perl (New York City).

4139. Cameron, N. Deterioration and regression in schizophrenic thinking. *J. abnorm. soc. Psychol.*, 1939, 34, 265-270.—The structure of schizophrenic patients' thinking differs in important respects from that of a group of normal children. The child's thinking is partially conditioned by his relative dearth of material and by his lack of organization of thought, because it has not yet been forced by social necessity into the adult logical form. Neither is true of the schizophrenic, and so there is no indication that his thinking has returned to a childish structure. Seniles studied apparently suffered from a dearth of available material; and their organization, far from being loose and too inclusive, was rather too simple and too restricted. The monotony and persistence of their relatively uncomplicated modes of attack were quite impressive; while the schizophrenics were versatile and flexible in their attempts, though in the end just as unsuccessful. The schizophrenics, with relatively good memory, showed themselves unable to organize and subordinate the events occurring simultaneously in their organism—perceptual, memorial, imaginal.—C. H. Johnson (Portland, Ore.).

4140. Codet, H. La nosographie d'Esquirol. (Esquirol's nosography.) *Evolut. psychiat.*, 1939, No. 1, 13-19.—G. Goldman (Sorbonne).

4141. Cossa, P. Sur quatre cas de psychose hallucinatoire. Essai d'interprétation. (Four cases of hallucinatory psychosis. Attempt at interpretation.) *Ann. méd.-psychol.*, 1939, 97, Part 1, 357-380.—M. B. Mitchell (Psychopathic Hospital, State University of Iowa).

4142. Creak, M. Organic psychoses in children. *Lancet*, 1939, 236, 626-629.—W. J. Brogden (Johns Hopkins).

4143. Curran, F. J. The drama as a therapeutic measure in adolescents. *Amer. J. Orthopsychiat.*, 1939, 9, 215-232.—This is a report of the dramatic work done in the psychiatric department of Bellevue Hospital in the ward for the diagnosis and treatment of adolescent boys. The author believes that dramatic activities in which boys write and act their own plays, followed by a free group discussion with the psychiatrist, not only aid in diagnosis and treatment but also add material which individual psychiatric conferences might not bring out. There are copious quotations from the plays and the following discussions.—R. E. Perl (New York City).

4144. Duus, P. Über psychische Störungen bei Tumoren des Orbitallhirns. (Mental disturbances with tumors of the orbital region.) *Arch. Psychiat. Nervenkr.*, 1939, 109, 596-648.—Uncomplicated character changes occur only in the beginning of the disease. These consist in lack of inhibition, elevation or sudden changes of mood, increase of ego-feeling and instinctive drives (eating, masturbation), and decrease of memory.—P. L. Krieger (Leipzig).

4145. Enke, W. Konfliktsneurosen der Temperamente. (Conflict neuroses and temperaments.) *Zbl. ges. Neurol. Psychiat.*, 1938, 91, 622.—Each temperament demands its own kind of life. If, for instance, a cyclothymic cannot live his life according to his pattern, he develops a psychogenic disorder which is very similar to the endogenous psychoses belonging to this temperament. So far this principle has been observed only in personalities fully developed socially and ethically.—P. L. Krieger (Leipzig).

4146. Erb, A. [The dynamics of delusional ideas (observations on cases of "schizophrenic" psychoses in postencephalitic Parkinsonianism).] *Z. ges. Neurol. Psychiat.*, 1938, 160, 793-803.

4147. Escat, E., & Escat, M. Un cas d'hallucinosé auditivo-visio-cénesthésique en relation possible avec une otopathie ancienne. (A case of auditory-visual-cenesthetic hallucinosis in possible relation to an old otopathy.) *Ann. méd.-psychol.*, 1939, 97, Part 1, 381-388.—M. B. Mitchell (Psychopathic Hospital, State University of Iowa).

4148. Ey, H. Esquirol et le problème des hallucinations. (Esquirol and the problem of hallucinations.) *Evolut. psychiat.*, 1939, No. 1, 21-41.—G. Goldman (Sorbonne).

4149. Fessmann, H. Die praktische Abgrenzung der physiologischen Dummheit einerseits und der rachitischen Entwicklungshemmungen anderseits gegenüber dem Schwachsinn leichtesten Grades. (The practical differential diagnosis of physiological stupidity and rachitic arrested development from the lightest grade of mental defect.) *Dtsch. Sonderschule*, 1938, 5, 780-790.—P. L. Krieger (Leipzig).

4150. Freeman, W., & Watts, J. W. Some observations of obsessive ruminative tendencies following interruption of the frontal association pathways. *Bull. Los Angeles neurol. Soc.*, 1938, 3, 51-66.

4151. Gabriel, B. An experiment in group treatment. *Amer. J. Orthopsychiat.*, 1939, 9, 146-170.—The author describes an experience in group therapy. The children in the group were originally treated on an individual basis, but they started dropping in without appointments and an informal group grew out of this. No program was planned, but the leader assumed the role of the non-critical, non-judging individual. She made them feel that she liked them no matter what they did. She was always interested in them and never became angry, even when it was necessary for her to become a limiting agent. The article contains verbatim reports of many of the group discussions. The author claims considerable success, but points out that the group treatment was supplemented by individual treatment and that treatment of the home and school was carried on at the same time.—R. E. Perl (New York City).

4152. Geyer, H. Zur Ätiologie der mongoloiden Idiotie. (The etiology of mongoloid idiocy.) Leipzig: G. Thieme, 1939. Pp. 105. RM. 7.80.

4153. Golubova, R. A. O nekotorykh dissotsiativnykh rechevykh rasstroistv pri sensornoi afazii. (Concerning certain dissociations of speech disorders in sensory aphasia.) *Sovetsk. Psikhonevrol.*, 1938, 14, 69-76.—In clinical observations dissociations of speech disorders are seen which do not fit the Wernicke-Lichtheim classificatory scheme. Such for example is the preservation of the ability to read aloud without any comprehension of the material, sometimes found in cortical sensory aphasia. A case is described in which the ability to read aloud is fully preserved despite the bilateral destruction of the area of Wernicke. This is taken to indicate the existence of a special system for "mechanical" reading, without comprehension, presumably distributed in the same cortical regions whose destruction produces pure alexia.—L. J. Stone (Brooklyn College).

4154. Green, R. Inter-agency use of child guidance clinics. *Amer. J. Orthopsychiat.*, 1939, 9, 170-179.—This is a discussion of how social workers can co-operate. Specifically, the author discusses the relationship that should exist between the social worker of a child guidance clinic and the social workers representing other agencies.—R. E. Perl (New York City).

4155. Hanfmann, E. Thought disturbances in schizophrenia as revealed by performance in a picture completion test. *J. abnorm. soc. Psychol.*, 1939, 34, 249-264.—A completion test was given to a group of schizophrenic patients, a small group of general paresis and arteriosclerotic patients, and a group of normal controls. Two thirds of the schizophrenic group and three quarters of the organic patients showed incongruous placements which were practically absent in the normal group.

in the organic group the response was generally on a lower level and less differentiated than in the schizophrenics; for the latter, the occurrence of peculiar solutions together with normal and even good completions was characteristic. Generally speaking, the patients seem unable to keep apart the sphere of personal wishes or fears, the sphere of objective reality, and the system of symbolic representation by picture or word. The common characteristic of incongruous placements is the disregard of the spatial relationships which are constitutive for a realistic pictorial representation. This disregard may be considered as a special instance of the general ineffectiveness of all system-forming factors which is characteristic of schizophrenic thinking.—C. H. Johnson (Portland, Ore.).

4156. Harms, E. Psychiatric nomenclature. *Amer. J. Orthopsychiat.*, 1939, 9, 81-86.—The author states that the names of psychopathogenic conditions should include the specific causal factors. We are apt to forget that consideration of these causal factors is necessary for cure.—R. E. Perl (New York City).

4157. Harrasser, A. Rasse und Körperkonstitution bei Schizophrenie. (Race and physical constitution in schizophrenia.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 602-603.—Among the patients in Upper Bavarian institutions, the athletic types most often show the catatonic form of schizophrenia. Among the paranoids and schizophrenics in the broader sense, the proportion of pyknics with Alpine racial characteristics is surprising.—P. L. Krieger (Leipzig).

4158. Ionescu-Sisești, —, & Copelman, L. Le profil mental des parkinsoniens. (Mental profiles of parkinsonians.) *Anal. Psihol.*, 1938, 5, 156-165.—Parkinsonian patients were examined with tests of intelligence, the Rorschach, and the psychogalvanic reflex technique. It seems very probable that the bradypsychism of parkinsonians, early indicated by the Rorschach method and the psychogalvanic reflex, is a real trouble and not a simple epiphenomenon of bradykinesia.—N. Marginean (Cluj, Rumania).

4159. Juda, A. Zur Aetiologie des Schwachsinn. Neue Untersuchungen an Hilfsschulzwilligen. (The etiology of mental defect. New studies on twins in special classes.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 600-601.—Of 20,000 children in south German special classes, 90.05% are decidedly deficient mentally. 392 of the total number of children are twins. The correlations between identical twins and double-ovum twins of the same sex shows almost 100% probability of mental defect in both of a pair. Of 79 pairs, 77 were concordant, either completely so or with slight differences in grade. Of the 98 double-ovum pairs, only 58 pairs were concordant. While in the general population there is only one twin to 66 adults, in the special classes the figure is one to every 37. Nevertheless, no general conclusions can be drawn from this fact.—P. L. Krieger (Leipzig).

4160. Katzenelbogen, S. [Ed.] Contributions dedicated to Dr. Adolf Meyer by his colleagues, friends and pupils, Henry Phipps Psychiatric Clinic. Baltimore: John Hopkins, 1938. Pp. 121. \$1.00.—R. R. Willoughby (Brown).

4161. Kennedy, A. The effect of cardiozol convulsions on the so-called "bulbocapnine catatonia" in the monkey. *J. Neurol. Psychiat.*, 1939, 2, 115-124.—The effect of cardiozol convulsions on the state produced by bulbocapnine was studied in 5 monkeys and compared by means of its effect on the grasp reflex, on the cataleptoid phenomena, and on the general motor state of the animal. Cardiozol greatly increases the cataleptic component of the state produced by bulbocapnine and prolongs the effect of the drug, both in its action in producing an akinetic state and in causing a reappearance of the neonatal grasp reflex. These effects are not produced by the cardiozol alone, which causes only a transient akinesis and appearance of the grasp reflex.—W. J. Brogden (Johns Hopkins).

4162. Kranz, H. Drei Jahre Erbforschung über angeborenen Schwachsinn. (Three years' investigation into the heredity of congenital mental defect.) *Fortschr. Erbpäth. Rassenhyg.*, 1938, 1, 281-322.—Comprehensive review.—P. L. Krieger (Leipzig).

4163. Krauss, R. Über die psychokathartische Behandlung. (Psychocathartic treatment.) *Zbl. Psychother.*, 1939, 11, 129-141.—Krauss describes his extensive experience with Ludwig Frank's method. The patient is placed in maximal physical and mental relaxation while looking at some object or with eyes closed. The affects causing the neurosis are then released, accompanied by marked sympathetic or parasympathetic phenomena and visual or acoustic images. The experience is worked out after the patient has abreacted, and treatments are repeated until a feeling of complete release is attained. The largest fields for psychocatharsis are hysteria and behavior disorders of children (even 3-year-olds are accessible). Perverts are favorably influenced, also manic-depressive patients as soon as they can co-operate. Obsessive neurotics are improved but not cured. Alcoholics, drug addicts and schizophrenics are unpromising.—M. E. Morse (Baltimore).

4164. Lahdensuu, S. [Incidence and causes of Mongolian idiocy as judged by clinical evidence collected in Finland.] *Acta paediat., Stockh.*, 1937, 21, 256 ff.

4165. Lang, T. [Short methodological remarks on my work on the genetic theory of homosexuality.] *Z. ges. Neurol. Psychiat.*, 1938, 160, 804-809.

4166. Langner, E. Vergleichende Untersuchungen an oberschlesischen und niederschlesischen Schwachsinnigen. (Comparative studies on mental defectives in Upper and Lower Silesia.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 600.—P. L. Krieger (Leipzig).

4167. Lebedinski, M. S. K voprosu o rechevykh nasstroistvakh u shizofrenikov. (Contribution to

the problem of speech disorders in schizophrenics.) *Sovetsk. Psikhonevrol.*, 1938, 14, 56-64.—Disturbances of speech in schizophrenia resemble those in aphasia in showing (1) modifications of form as well as of content; (2) alterations involving specific words and entire systems of speech; (3) involvement of the patient's own speech and his understanding of others; (4) increasing difficulties as the problem faced becomes less concrete and more abstract. Essential differences characterize schizophrenic disturbances, however: (1) goal-directedness, or purposefulness of speech (retained by the aphasic patient) is lost; (2) meanings of words are altered, rather than lost: thus words are altered in meaning, or used in a variety of meanings ("polysemantism"); (3) elements of speech, instead of being subordinated to the meaning of the whole sentence or of the task faced by the patient, become increasingly independent and acquire autonomous meanings. Sometimes these in turn alter the meaning of the whole, modify the meaning of words, and produce neologisms. Characteristics such as disintegration and lability of meaning are held to be descriptive of the general personality changes in schizophrenia, as well as of speech disturbances. Personality changes cannot, however, be regarded as explanations of the phenomena of schizophrenia, but the altered personality must be analyzed through all its manifestations, including those of speech. The autonomy of part functions characteristic of schizophrenia is considered to be the opposite of the inability to "categorize" found by Gelb and Goldstein in aphasia.—L. J. Stone (Brooklyn College).

4168. Legrand, A., & Neron, G. Un cas d'hystérie infantile avec crises convulsives. (A case of child hysteria with convulsive attacks.) *Evolut. psychiat.*, 1938, No. 4, 47-57.—An account is given of the rapid cure obtained in the case of an 11-year-old boy, the mechanism of which is described in letters written by the boy to his family during the treatment period.—G. Goldman (Sorbonne).

4169. Legrün, A. Schriften Geisteskranker aus ihrer Jugendzeit. (The adolescent handwriting of psychotics.) *Z. pädag. Psychol.*, 1939, 40, 85-91.—To the author's knowledge, this is the first study of this subject. He collected specimens of the adolescent handwriting of a number of persons who later developed psychoses (most often schizophrenia), also of 70 suicides. None of the samples showed any abnormalities, or even peculiarities which are not found also in normal adolescents. Even an already developed psychosis did not always find expression in the handwriting.—M. E. Morse (Baltimore).

4170. Low, A. A. Placement of the former mental patient. *Employment Serv. News*, 1939, 6, No. 2, 14-16.—The former mental patient is not handicapped; he is stigmatized. The stigma is based on the popular misconception of "once insane, always insane." Although large concerns are more liberal, small employers refuse to rehire a former mental patient because they fear he will suffer a relapse and "go off into raving madness." Relapses after recovery are relatively rare, and "the madness of the

mental patient is a myth." "What is called for at present is an educational campaign to eradicate the prejudice against the mental patient."—G. R. Thornton (Nebraska).

4171. Martin, A. R. **Psychiatry in a boys' club.** *Amer. J. Orthopsychiat.*, 1939, 9, 123-136.—This is a report upon the preventive psychiatric methods practiced during a 2-year experimental period in 6 of the Children's Aid Society boys' clubs in New York City. 950 boys were treated. Under the heading "Uncovering the problem," 4 phases are described; interviewing the boys, analysis of the verbatim interviews by the psychiatrist, comparing and contrasting all interviews, and the personnel's knowledge of the boys' family relationships. Under the heading "Acquainting the staff with the problems," the principal methods discussed are (1) through the psychiatrist's representative at the club, (2) circulation of verbatim interviews and reports upon every boy, (3) conferences with the staff, (4) the use of program cards. Relief of the specific problem in each case is attempted within the club by the provision of attitudes, relationships, and policies that counteract or compensate for what is lacking in the home. Relieving the problems at their source is attempted by influencing parents' attitudes through meetings, talks, and individual consultations.—R. E. Perl (New York City).

4172. Menninger, K. A. **The Cinderella of medicine.** *Bull. Menninger Clin.*, 1938, 2, 180-187; *N. Y. St. J. Med.*, 1938, 38, No. 12.—Modern medicine is based on three sciences—chemistry, physics, psychology. Psychology has not as yet been completely incorporated into medicine, either in theory or in practice. Short-cut methods of examination made at the expense of the psychological factor are indefensible and often lead to serious errors in treatment. Blindness to the psychological and social aspects of the human being has been one reason for the rise of state medicine. "Psychiatry is the Cinderella of medicine" (Thomas Salmon).—W. A. Varvel (Kansas).

4173. Menninger, K. A. **The psychological factor in disease.** *Bull. Menninger Clin.*, 1939, 3, 14-19.—Psychological processes represented by the wish to fall ill may be correlated with the structural or functional disease of an organ. Supporting evidence from physiological research is cited. Psychological and empirical evidence is offered: (1) Physical symptoms may be induced by stimuli which are essentially psychological in nature. (2) In some diseases psychopathology is just as conspicuous as physical pathology, and it is illogical to assume that they have no connection. (3) No one denies the therapeutic effect, in some organic diseases, of a purely psychological or sociological approach. (4) The alternation or substitution of psychological and physical disease syndromes, as if they stood in some reciprocal relationship to one another, has been observed. (5) The same motives and psychological structure can be shown to exist in illnesses predominantly psychological and illnesses predomi-

nantly physical. In every disease process there are psychological factors, physical factors, and chemical factors.—W. A. Varvel (Kansas).

4174. Michaels, J. J., & Goodman, S. E. **The incidence of enuresis and age of cessation in one thousand neuropsychiatric patients: with a discussion of the relationship between enuresis and delinquency.** *Amer. J. Orthopsychiat.*, 1939, 9, 59-72.—This is a statistical study of the incidence of enuresis in 1000 neuropsychiatric patients distributed into 14 diagnostic groups. Enuresis was significantly greater in the following groups; psychopathic personality, psychiatric behavior problems, and mental deficiency. Manic-depressives had the lowest incidence of enuresis. There were consistently more male enuretics. The persistence of enuresis reflects psychosomatically the lack of an inhibitory agent, just as delinquency reflects this lack sociopsychologically. Enuresis seems to be such a prophetic indicator of psychobiological reactivity that a more intensive study of it in the individual is needed.—R. E. Perl (New York City).

4175. Miller, H. H. **Acute psychoses following surgical procedures.** *Brit. med. J.*, 1939, Part 1, 558-559.—W. J. Brogden (Johns Hopkins).

4176. Moore, T. V. **Psychoses and the prepsychotic personality.** *Amer. J. Orthopsychiat.*, 1939, 9, 136-146.—This is a statistical study which attempts to determine how symptoms are associated in the mental disorders and how psychotic condition is related to prepsychotic character. There is a positive relationship between the type of psychosis and the cognate traits of character. Specific character defects are related to the type of psychosis by which a patient is affected. There is a negative relationship between a number of symptoms in the mental disorders. It is suggested that the negative correlation between certain psychotic symptoms might be related to emotional reflex centers in the hypothalamic region.—R. E. Perl (New York City).

4177. Moreno, J. L. **Creativity and cultural conserves—with special reference to musical expression.** *Sociometry*, 1939, 2, No. 2, 1-36.—A case of neurosis (designated as a "performance neurosis") in a professional musician is described. A special form of treatment adapted to the creative individual is developed and described, and a general theory of creativity is presented, which shows the relation of creativity to the internalized framework of cultural values. The patient's personal relationships (private social atom) are left untouched, and his difficulties are considered and treated in terms of his "creative ego" and his relationships to composers, teachers, audience, orchestra, his violin, etc. By a long series of spontaneity tests in the therapeutic theater his troubles are found to involve particularly a mutual interference between his own creative tendencies and the force of musical "cultural conserves" (e.g. a written, memorized composition). Treatment—in the therapeutic theater—involves training in feeling spontaneously, creatively, and imaginatively during his playing of each piece of music. His

images may be "false" interpretations (not those of the composer) but may enable the musician to achieve spontaneity and freedom in playing the works of others: he is freed "gradually from the burden which musical conserves inflicted upon his performance." The techniques used in the course of diagnosis and therapy are presented in some detail, with their supporting theory.—*L. J. Stone* (Brooklyn College).

4178. **Müller-Braunschweig, C.** *Forderungen an eine die Psychotherapie unterbauende Psychologie.* (The requirements of a psychology serving as a basis for psychotherapy.) *Zbl. Psychother.*, 1939, 11, 168-176.—The scientific basis of psychotherapy must be a central autochthonous science, including both the normal and the abnormal, integrating all viewpoints, and like life, must be built up on opposites. The chief of these are: body (instincts) and mind (values, ideals); causality and genesis; an evolutionary series and a transcendental (symbolic) sense, connected with the precultural "animal," the early irrational, and the cultural phases; nature (scientific) and history (biographical). The ultimate requirements are extra-scientific functions, the premises of which lie either anterior to or beyond science. Only those persons can pursue psychology who throw themselves into the fullness of life with love of life, courage and responsibility.—*M. E. Morse* (Baltimore).

4179. **Nielsen, J. M.** *Loss of the sense of weight as an isolated complaint.* *Bull. Los Angeles neurol. Soc.*, 1938, 3, 91.

4180. **Orr, D. W.** *Psychiatric treatment methods used with children in the neuropsychiatric division of the Topeka City Clinic.* *Bull. Menninger Clin.*, 1938, 2, 172-179.—"The neuropsychiatric division of the Topeka City Clinic admitted 164 new patients during 1937, of which 58 per cent were children. Routine examinations include a physical and neurological examination and psychiatric interviews. Psychometric tests are given when indicated. Summaries of three cases illustrate the types of problems seen in the clinic and some of the methods of diagnosis, interviewing, and treatment. General principles of treatment include establishing rapport with the patient, maintaining an objective attitude, employing a knowledge of dynamic psychology in attempting to modify the child's personality to effect more satisfactory types of adjustment, and, at the same time, cooperation with parents or social workers in modifying the patient's environment in the direction of greater stability and security in accordance with well-established mental hygiene precepts."—*W. A. Varvel* (Kansas).

4181. **Pauly, R., & Hecaen, H.** *Manie et inspiration musicale. Le cas Hugo Wolf.* (Mania and musical inspiration. The case of Hugo Wolf.) *Ann. méd.-psychol.*, 1939, 97, Part 1, 389-405.—*M. B. Mitchell* (Psychopathic Hospital, State University of Iowa).

4182. **Pederson, T. E.** *Nursing aspects of habit-training.* *U. S. Veterans' Bur. med. Bull.*, 1939,

15, 383-393.—"Habit-training for patients in psychiatric hospitals is a system of therapeutics . . . calculated to secure conduct and habits that will increasingly lead to rehabilitation." It "is the nurse's real share in the therapeutic teamwork of any psychiatric ward." Habit-training is discussed as it applies to treatment of five classes of patients: an elementary training class, and patients on closed continuous-treatment wards, on the infirmity ward, on the acutely disturbed ward, and on the parole ward. All the nurse's efforts to help a patient to recovery "are directed continuously to reconditioning of his attitude and habitude, to a rebuilding of his self-respect and self-confidence and morale."—*G. R. Thornton* (Nebraska).

4183. **Picard, J.** *Esquirol et la législation sur les aliénés.* (Esquirol and legislation for the insane.) *Evolut. psychiat.*, 1939, No. 1, 43-52.—*G. Goldman* (Sorbonne).

4184. **Reider, N., Olinger, D., & Lyle, J.** *Amateur dramatics as a therapeutic agent in the psychiatric hospital.* *Bull. Menninger Clin.*, 1939, 3, 20-26.—Dramatics may have distinct value as a therapy in the mental hospital. "In any play centering around the problems and difficulties of interpersonal relations there will be adequate material for alert therapists to utilize." Engaging in amateur dramatics has social and recreational values and is a means of self-development and self-expression. Such activity may provide outlets for the unconscious needs of the patients who participate and of those who witness it. A detailed description of the presentation of a domestic farce, "Man Submerged," is given by way of illustration.—*W. A. Varvel* (Kansas).

4185. **Robbins, S. D.** *Examination and re-education of aphasics.* *J. Speech Disorders*, 1939, 4, 15-24.—"Before one can understand aphasia, he must comprehend how the normal brain functions in normal speech." With this introduction the author presents the classical neuro-physiological theories of brain functions and localizes the several functions involved in speech and language. Cases which appear to violate this system are explained as imagery types. "It is important to know, therefore, whether the patient was an audile, a visile, or a motile before he became aphasic." Tests for auditory, visual, motor, amnesic, and semantic aphasia along with re-education suggestions for each type are presented.—*C. V. Hudgins* (Clarke School).

4186. **Russell, J. I.** *The occupational treatment of mental illness.* Baltimore: William Wood, 1938. Pp. 231. \$2.50.—This is largely a textbook of occupational therapy as used in a British mental hospital. Occupational therapy assists in integrating and socializing the personality, and in the restoration of self-confidence.—*H. Schlosberg* (Brown).

4187. **Rüth, G.** *Die Schreibfehler und ihre Bedeutung für die Schülerbeurteilung.* (The meaning of mistakes in writing for the judgment of pupils.) *Z. pädag. Psychol.*, 1939, 40, 91-96.—Mistakes in the writing of feeble-minded children are distinguished not only by their number but also by their kind, and

they originate in weakness of definite mental functions. The characteristic mistake is perseveration, which consists in suppression or addition (the more frequent), either anterior or posterior to the dominant visual or acoustic element of the word. It is caused by defective attention and memory. The type of mistake depends on the child's ideational type. Mistakes are less numerous in nonsense writing because the pupil then uses his maximal attention. Their frequency gives a good estimate of intelligence, although some of the feeble-minded do not show perseveration. It is more common in younger pupils.—*M. E. Morse* (Baltimore).

4188. Sachs, L. [Delusions of influence and character.] *Z. ges. Neurol. Psychiat.*, 1938, 160, 680-702.

4189. Saussure, R. de. La psychothérapie d'Esquirol. (Esquirol's psychotherapy.) *Evolut. psychiat.*, 1939, No. 1, 53-67.—*G. Goldman* (Sorbonne).

4190. Schilder, P. The relations between clinging and equilibrium. *Int. J. Psycho-Anal.*, 1939, 20, 58-63.—Discussion is given of the interrelationships of sucking and grasping reflexes, the appearance of these forms of behavior in alcoholic and organic disease states, and the later development of grasping and clinging behavior as a means of postural support. Clinging is then discussed in relationship to the psychoneuroses and the need for a "supporting figure."—*M. H. Erickson* (Eloise Hospital).

4191. Schmidt, G. Der Stehltrieb oder die Kleptomanie. (The impulse to steal, or kleptomania.) *Zbl. ges. Neurol. Psychiat.*, 1939, 92, 1-18.—A survey of the literature on kleptomania shows that there is an impulse to steal which involves a desire for adventure and danger in so far as stealing is done for its own sake and not as a means to an end. Often it is a secondary drive brought about by mental depression, though it is not so immediately based on the latter as is the drive to run away from home, and probably needs a special experience as a contributing stimulus.—*P. L. Krieger* (Leipzig).

4192. Schube, P., & Cowell, J. Art of psychotic persons. *Arch. Neurol. Psychiat.*, Chicago, 1939, 41, 709-720.—These authors conclude that there appears to be distinct evidence of unbalance between mental activity and restraint in the art productions of psychotic persons, especially those patients with depressive psychoses, alcoholic psychoses, and psychoneuroses, where the dominance of restraint is particularly demonstrable. Dominance of activity is evidenced in the productions of art in patients with dementia praecox, paranoid conditions, psychopathic personality, manic states, or drug addiction. All patients were graded on these points: productivity, design, imagery, technique, and the restraint-activity index (R-A). If a patient exhibiting restraint in his art becomes better or worse mentally, there is a corresponding decrease or increase in his R-A index, whereas in the person showing activity in his art productions the R-A index changes in inverse proportion to the seriousness

of his mental illness.—*W. Marshall* (Appleton Clinic, Wis.).

4193. Schulz, B. Empirische Untersuchungen über die Bedeutung beidseitiger Belastung mit endogenen Psychosen. (Empirical studies on the meaning of bilateral inheritance of endogenous psychoses.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 601.—Schulz reports on 387 children and 1257 adults in whose families endogenous psychoses had occurred on both sides. Children whose parents are both healthy, although carrying a recessive tendency to an endogenous psychosis, show a relatively lower expectation for these diseases. Nevertheless, a simple dominant inheritance is improbable. Involutional depressions are not in the same class as endogenous psychoses, and there is no relationship to epilepsy.—*P. L. Krieger* (Leipzig).

4194. Southwick, W. E. Time and stage in development at which factors operate to produce mongolism. *Amer. J. Dis. Child.*, 1939, 57, 68-89.—*W. J. Brogden* (Johns Hopkins).

4195. Stalker, H., Millar, W. M., & Jacobs, J. M. Remissions in schizophrenia. *Lancet*, 1939, 236, 437-439.—*W. J. Brogden* (Johns Hopkins).

4196. Störing, E. Die Störungen des Persönlichkeitsbewusstseins bei manisch-depressiven Erkrankungen. (Disturbances of personality consciousness in manic-depressive disorders.) *Abh. Neurol. Psychiat.*, 1938, H. 86. Pp. 60. RM 7.20.—The clinical pictures in disturbances of personality consciousness cannot be simple because of the different varieties of depersonalization. Nevertheless, 3 main groups stand out: (1) In the absence of objective and often also of subjective inhibition, a vital tension and restlessness stands in the foreground, while vital sadness is often remarkably slight and depressive delusions, especially of sinfulness, are almost absent. (2) Subjective inhibition is marked, although objectively absent. There are complaints of great vital unrest and "loss of feeling." Depressive delusions are usually absent. (3) No objective inhibition, but tension, restlessness, dreamy aloofness, and sometimes ideas of sinfulness. Vital depression is deeper. Störing has not observed "a tormenting obsession of self-observation" (Gebaettel). Common to all 3 groups is the absence of objective inhibition.—*P. L. Krieger* (Leipzig).

4197. Störing, G. E. [Psychopathology of the diencephalon.] *Arch. Psychiat. Nervenkr.*, 1938, 107, 786.

4198. Stumpff, F. Ergebnisse von Untersuchungen an einer lückenlosen Serie psychopathischer, nicht-krimineller Zwillinge. (Results of studies of a complete series of psychopathic noncriminal twins.) *Zbl. ges. Neurol. Psychiat.*, 1939, 91, 603-604.—The percentage of criminals in the 70 pairs of twins studied was slightly over 5% for the males. They were psychopaths who suffered from their own abnormality and in social behavior did not deviate from the average. Among noncriminal twins it is impossible to speak unconditionally of correlative

figures and to form a judgment from them.—P. L. Krieger (Leipzig).

4199. Takamizu, R. *Psychopathologie bei ökonomischer Welt.* (Psychopathology in an economic world.) *Z. Psychoanal.*, Tokyo, 1938, 7, Nos. 3-4.

4200. Tatarenko, N. P. *Afaziopodobnye rasstrojstva rechi u shizofrenikov.* (Aphasia-like disturbances of speech in schizophrenics.) *Sovetsk. Psihonevrolog.*, 1938, 14, 65-68.—A brief review of the literature on speech disorders in schizophrenia is followed by a schematic presentation of observed difficulties in the use of single words. Patients show two types of difficulty: inappropriate use of real words and the creation of neologisms. Of the first type three varieties are noted: (1) phonetic substitution—use of words that sound like the appropriate one but are meaningless in the context; (2) semantic substitution—use of incorrect words related in meaning to the correct one; (3) combinations of the first two kinds of substitution. In the formation of neologisms combinations of two known words, creation of new words on the model of known ones, or completely new creations are noted. It is pointed out that similar modifications and neologisms are found in aphasia, but Kleist's view that schizophrenia is a form of aphasia is held to be too inclusive, and moreover, merely relates one unknown to another: for this reason the material reported on is referred to merely as aphasia-like.—L. J. Stone (Brooklyn College).

4201. Weber, A. *Über nihilistischen Wahn und Depersonalisation.* (Nihilistic delusions and depersonalization.) *Abh. Neurol. Psychiat.*, 1938, H. 84. Pp. 137.

4202. Wegrocki, H. J. *A critique of cultural and statistical concepts of abnormality.* *J. abnorm. soc. Psychol.*, 1939, 34, 166-178.—A relativity or statistical theory of abnormality which argues from the ethnological material at hand cannot withstand a close analysis. When abnormality is considered as the tendency to choose a type of reaction which represents an escape from a conflict-producing situation instead of a facing of the problem, much strange behavior considered abnormal is not such when it is the accepted response to certain situations, e.g., amok seizure of the Malaysians, or "defense de toucher" of the Polynesians. An abnormal reaction represents a spontaneous protective device of the personality, something which is not learned. That is why the hallucinations of the Plains Indians are not abnormal, while those of the schizophrenic are. Because this distinction is not kept in mind and because a primarily statistico-relative conception of abnormality is adhered to, the unwarranted conclusion is too frequently drawn that standards of "abnormality" differ with cultures and are culturally determined.—C. H. Johnson (Portland, Ore.).

4203. Weiss, O. L. *Behandlung psychischer Alterserscheinungen bei Männern und Frauen mit synthetischen Testeshormon.* (The treatment of mental senile phenomena with synthetic testicular hormone.) *Dtsch. med. Wschr.*, 1939, 65, 261-262.—

Weiss reports successful results in 40 senile depressions, as well as other cases, after several weeks' treatment with Perandren.—P. L. Krieger (Leipzig).

4204. Witmer, H. L. *Some parallels between dynamic psychiatry and cultural anthropology.* *Amer. J. Orthopsychiat.*, 1939, 9, 95-102.—The basic principle of functional anthropology is that customs are explainable in terms of the functions they serve. Psychoanalysis sheds light on human behavior by asserting that there are purpose and meaning in the most incoherent talk and actions of the psychotic. In the same way, functional anthropology insisted that there were no cultural survivals; the commonplace can no longer be dismissed as universal or the grotesque as accidental. There are many parallels between functional anthropology and dynamic psychiatry. Psychiatrists will make many errors if they assume that entity which functional anthropology denies, namely, the group mind.—R. E. Perl (New York City).

4205. Zilboorg, G. *Overestimation of psychopathology.* *Amer. J. Orthopsychiat.*, 1939, 9, 86-95.—We overestimate the value of psychopathology and particularly of psychoanalysis because of our fundamental narcissism. Our megalomania is displaced to our tools. An example of this overestimation is shown by our surprise when we see an analyzed person really sad or angry. The apologist for psychoanalysis might say that the person had not been fully analyzed or he would be better adjusted. The opponent would point out that psychoanalysis is worthless since the given individual still becomes angry, sad, etc. It is obvious that both endow psychoanalysis with miraculous powers of perfection.—R. E. Perl (New York City).

[See also abstracts 3914, 3918, 3942, 3964, 4032, 4087, 4093, 4118, 4249, 4256, 4259, 4313, 4321, 4323, 4350, 4373, 4387, 4397, 4418.]

PERSONALITY AND CHARACTER

4206. Allport, G. W. *Personality: a problem for science or a problem for art?* *Rev. Psychol.*, 1938, 1, 488-502.—Literature uses the method of defining with the aid of equivalent stimulations and equivalent responses the major dispositions of character. It proceeds on the assumption that each character has certain traits peculiar to itself which can be defined through the narrating of typical episodes from life. In literature a personality is never regarded, as it sometimes is in psychology, as a sequence of unrelated specific acts. Therefore the first lesson that psychology has to learn from literature is something about the nature of the substantial and enduring disposition of which personality is composed. This is the problem of traits. A second major lesson from literature concerns the self-consistency of the products of character. Every act of personality seems to be in some subtle way both a reflection of and a rounding out of a single, well-knit character. This adhesiveness of behavior meets the test known as

self-confrontation; one bit of behavior supports another, so that the whole can be comprehended as a self-consistent if intricate unity. The third major lesson for psychologists to learn from literature is to keep a sustained interest in one individual person for a long period of time. Psychology in its turn is more exact and controlled.—*N. Marginean* (Cluj, Rumania).

4207. *Caro, J. H. Persoon en persoonsbeoordeel- ing.* (Personality and estimates of personality.) *Ned. Tijdschr. Psychol.*, 1939, 6, 489-524.—During a half-hour broadcast 6 male voices read a short prose selection at 2-minute intervals. Listeners were requested to answer the questions: "What impression did the voice make on you? How do you picture the speaker? Who and what are you?" The purpose of the experiment was to determine the influence of one's own personality upon one's judgment of another's. It was possible to classify the respondents into several groups and determine the relationship between their self-descriptions and their estimates of radio personalities. This relationship was especially marked when the listener was a person with little education. Those of higher occupational status tended to be more careful and less specific in their estimates.—*H. Beaumont* (Kentucky).

4208. *Durea, M. A. A study of personality from the standpoint of social stimulus value.* *J. soc. Psychol.*, 1939, 10, 61-79.—113 college students each applied three adjectives, from a given list of 120 terms, to 10 motion-picture actors and 10 actresses, chosen from lists of 60 actors and 60 actresses. There was a wide spread of terms applied, the terms "cultured," "clever," and "suave" being most concentrated for actors, and the term "sexy" for actresses (being applied by 16 raters to Mae West). It was concluded that trait names are adjectival stereotypes; that the social stimulus values of actors and actresses are subject to considerable fluctuation, and that psychology has not yet developed sufficiently to warrant fixed definitions of personality.—*G. Brighouse* (Occidental).

4209. *Fischer, G. H. Das System der Typen- lehren und die Frage nach dem Aufbau der Persön- lichkeit.* (The system of typology and the question of personality development.) *Z. angew. Psychol.*, 1939, 56, 82-103.—Subtitle: A contribution to the newer work on the hereditary characterology of Pfahler and the integration typology of Jaensch. The importance of the developmental approach in the field of typology (personality) is emphasized. The work of Pfahler, in which an attempt is made to determine the biological basis of differences, is related to the typological findings of Jaensch.—*G. F. J. Lehner* (Vermont).

4210. *Flint, M. Die Strukturen der Umwelter- fassung.* (The structure of the interpretation of the outside world.) *Ned. Tijdschr. Psychol.*, 1939, 6, 546-571.—Selz and the Berlin school emphasized the imitation of the physical situation in the individual's interpretation of the outside world. Lewin and most other investigators considered this experi-

ence as an original arrangement of disorganized impressions, variously influenced by the individual's developmental level and his momentary set. Jaensch attempted a synthesis of both points of view by suggesting that the physical situation was imitated, but modified by subjective attitudes. He stressed the subjective aspect of this interpretation, while Köhler, Wertheimer and Koffka emphasized the objective side. The different possible levels of the individual's conceptual and psychic development and the influence of his mental set on his conceptual world are not sufficiently understood to permit a complete explanation of the individuality of interpretations of the outside world.—*H. Beaumont* (Kentucky).

4211. *Greene, J. E., & Staton, T. F. Predictive value of various tests of emotionality and adjust- ment in a guidance program for prospective teachers.* *J. educ. Res.*, 1939, 32, 653-659.—At the University of Georgia 100 students in the College of Education were given 3 tests of emotionality (Bernreuter, Bell, and Willoughby), 3 tests for teaching aptitude (George Washington University, Coxe-Orleans, and the Morris Trait L Index), and 4 supplementary measures (grades, intelligence-test scores, Wrenn's study-habit inventory, and Sims' socio-economic status). 49 of the 66 intercorrelations of the several tests have statistical validity; only 9 of the 36 correlations between teaching-aptitude measures and those of emotionality and adjustment are statistically reliable. There seems to be no correlation between these and the supplementary measures.—*S. W. Fernberger* (Pennsylvania).

4212. *Guilford, J. P., & Guilford, R. B. Person- ality factors N and GD.* *J. abnorm. soc. Psychol.*, 1939, 34, 239-248.—This investigation was inspired by Freeman's theory that individual differences in reactivity of nervous systems furnish the physi- ological basis for some important differences in personality. A general dimension of hyperactivity- hypoactivity was assumed. A personality question- naire of 100 items was set up, with many of the items aimed to bring out differences in hyperactivity. After the inventory was administered to 600 students, 24 of the most representative items were selected for a factor analysis. The analysis showed that there is not a single dimension of hyperactivity-hypoac- tivity, but probably at least four. Two of them were clearly identified as factor *N* (nervousness or jumpi- ness) and factor *GD* (general drive, characterized chiefly by a pressure toward action). The other two could not be identified. A fifth factor seemed to imply a variety-loving trait, but it was not clearly defined. Relationships of factor *N* to parathyroid function and of factor *GD* to other glands were suggested. It is maintained that an important prerequisite to the correlation between traits of behavior and physiological traits is a knowledge of the primary dimensions of behavior characteristics and that the factor-analysis method is an important tool in this approach.—*C. H. Johnson* (Portland, Ore.).

4213. Kelley, T. L. Mental factors of no importance. *J. educ. Psychol.*, 1939, 30, 139-142.—Mental factors of no importance are characterized by their mode of derivation, born as they are "from the meditations of a Spranger, the libido of a Freud, . . . or the dial of a differential analyzer." They are also marked by their purity—"untrammelled by clothes of doubt," and by the fact that they have not been put to work. Modern methods of measurement and analysis should do four things: yield more precise tools for the measurement of human traits; give means of combining measurements so that we may have simpler and more economical systems of thought; yield quantitative measures of stability of factors; and provide quantitative measures of usefulness of the traits employed.—R. M. Bellows (Maryland).

4214. Lawton, G. What is a well-adjusted person? *J. Adult Educ.*, 1938, Oct., 1-2.—(*Educ. Abstr.* IV: 201).

4215. Luck, R. Schüchternheit. Eine Ermütigung der Schüchternen und Ängstlichen. (Timidity. Encouragement for the timid and anxious.) Dresden: Schwarze, 1939. Pp. 112. RM. 2.20.

4216. Moore, W. E. Personality traits and voice quality deficiencies. *J. Speech Disorders*, 1939, 4, 33-36.—The data presented in this paper consist of personality inventories (Bernreuter), self-ratings on a speech personality sheet, and ratings by 10 advanced speech students. Of 453 college students studied, 119 were found to have voices classified as breathy, nasal, harsh, or metallic. Results show that students with breathy voices are likely to be high in neurotic tendencies and introversion and low in dominance. Analysis of self-ratings shows that students with nasal or breathy voices rate themselves lower, while those with harsh or metallic voices rate themselves higher, than the ratings of disinterested critics. In general the study indicates a possible relation between types of voice quality deficiencies and personality traits. If this relationship exists, personality adjustment is necessary before direct speech therapy is possible.—C. V. Hudgins (Clarke School).

4217. Neweklowsky, K. Untersuchungen über die typendiagnostische Verlässlichkeit der Fragebogenmethode. (Investigation of the reliability of the questionnaire as a means of typological diagnosis.) *Z. angew. Psychol.*, 1939, 56, 1-81.—The usefulness of the questionnaire for differentiating Kretschmer's types was investigated. 115 individuals, 84 men and 31 women, the majority under 30 years of age, were given Scholl's questionnaire. To check consistency of response the questionnaire was presented again after 2-4 months and in some cases a third time. The items which showed contradictions were discounted as not having diagnostic value. The remaining questions were each correlated with the five body types, and of these five questions were found to have definite diagnostic value (nos. 2, 4, 8, 12, and 13 of Scholl).—G. F. J. Lehner (Vermont).

4218. Rusu, L. Contribuții la o tipologie. (Contributions to a typology.) *Rev. Psihol.*, 1939, 2, 35-43.—A résumé and a development of the typology elaborated by the author in his book *Essai sur la création artistique*, Paris, Alcan. The criterion of the typology is the idea of psychological effort of Janet. The control and synthesis of psychological conflicts requires a certain degree of effort, which is higher or lower according to the intensity of the conflict. The low or high intensity of the conflicts influences in a very high degree the sentiment of the ego. The person with peace of mind represents one type, while the person without peace of mind and full of conflicts represents another type. The first type is called sympathetic, while the other one is called demoniac.—N. Marginean (Cluj, Rumania).

4219. Schöne, H. Strukturtypologische Untersuchung der Entwicklungsphasen. (Structural typological investigation of developmental phases.) *Arch. ges. Psychol.*, 1939, 102, 543-579.—The investigation, conducted with secondary school pupils, consisted chiefly of a study of the frequencies at various ages of the Jaensch personality types. Three distinctive developmental phases are: the I₁ phase at ages 11 and 12, the phase of ambivalence from 13 to 16, and the ensuing "phase of fixed assimilation." Growth, and especially the application of practical influence during these phases, depends on the total situation and in large part on the personality of any leader. The best youth leaders belong to the I₂ type.—H. D. Spoerl (American International College).

4220. Thorpe, L. P., Clark, W. W., & Tiegs, E. W. California test of personality (elementary, form A). Los Angeles: Calif. Test Bureau, 1939. Specimen set, \$0.25.—This profile of personal and social adjustment (designed for grades 4-9) is divided into two sections with six sub-tests in each. The purpose of Section I is to indicate how the pupil feels and thinks about himself, his self-reliance, his estimate of his own worth, his sense of freedom, his feeling of belonging, and his freedom from certain withdrawing and nervous tendencies. Section 2 deals with social adjustment components: how the pupil functions as a social being, his knowledge of social standards, his freedom from anti-social tendencies, his family, school, and community relationships. A "diagnostic profile" may be obtained from the results. Reliability, computed by the split-half method on 334 cases, is quoted as .93 for the whole scale.—M. Keller (Butler Hospital).

4221. Trueblood, C. K. Beliefs and personality. *J. abnorm. soc. Psychol.*, 1939, 34, 200-224.—The relevance of the concept of belief to the psychology of personality has been urged, not only because beliefs, considered as the reality-attitudes of the individual, are mental substructures which are psychologically distinct, numerous, flexible, markedly individual, highly interorganized, yet relatively accessible to study and thus important in characterizing the diversities of particular minds; but also because beliefs, since they are specifically the guides

of the individual's action, are evidently the most focal and unifying of his modes of security or mastery in relation to his environment.—C. H. Johnson (Portland, Ore.).

4222. Weiland, W. *Persönlichkeitstypus und Wertung. Eine psychologische Untersuchung an Jugendlichen zwischen 17 und 19 Jahren.* (Personality type and valuation. A psychological study of 17-19-year-old youths.) *Arch. ges. Psychol.*, 1939, 102, 457-516.—Value judgments over a wide and varied range were studied from the point of view of Jaensch's integrative typology and also from that of Spranger's scheme. The valuing process has a varying "psychic structure," depending on the degree of integration of the personality. This principle applies generally to all fields of interest and value directions, although for certain relatively unintegrated types particular directions become more significant in a secondary way. Qualitative responses to general values and value areas are extensively tabulated in concrete form.—H. D. Spoerl (American International College).

[See also abstracts 3900, 3940, 4032, 4087, 4094, 4145, 4176, 4234, 4235, 4264, 4317, 4344, 4357, 4396, 4404.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

4223. Allen, C. N., & Curtis, K. A sociogrammatic study of Oedipus complex formation: D. H. Lawrence's *Sons and Lovers*. *Sociometry*, 1939, 2, No. 2, 37-51.—D. H. Lawrence's partly autobiographic novel of the Oedipus complex—*Sons and Lovers*—is presented in a précis, and the narrative is presented in a double-page sociogram. This is a new application of Moreno's sociometric technique, and the results have been useful for personal and classroom study of abnormal psychology.—L. J. Stone (Brooklyn College).

4224. Barber, S. M. *Speech education.* Boston: Little, Brown, 1939. Pp. 501. \$1.60.

4225. Beringer, K. [Superstition in the Black Forest.] *Arch. Psychiat. Nervenkr.*, 1938, 108, 228-254.

4226. Borchers, O. J. The relation between intensity and harmonic structure in voice. *Psychol. Rec.*, 1939, 3, 59-67.—Conclusions based upon an analysis of tones for the vowel *a* produced by four artists are: (1) there is a greater percentage of energy in the fundamental of tones sung with less intensity but at the same approximate pitch; (2) the amount of energy is increased in the fundamental from low to high tones sung pianissimo; (3) "the centroid of the total dispersion of energy changes to markedly higher frequencies in tones sung at greater intensity levels but at the same pitch."—P. S. de Q. Cabot (Simmons).

4227. Brendel, A. *Die psychologischen Voraussetzungen zu einer neuen Rechtschreibreform.* (The psychological basis of a new reformed ortho-

graphy.) *Arch. ges. Psychol.*, 1939, 102, 322-374.—Psychological factors in orthography have been too generally disregarded by those interested in its reform. The writer as well as the process of writing must be considered, and both must be approached from the point of view of a totality psychology. Actual rather than possible errors on a given level of psychological capacity must determine orthographic principles. Orthographic performance correlates with understanding, drawing, controlled co-ordination, and general intelligence, but not with calculating ability. Too much stress has been laid on memory as a distinctive function. Oral expression is also closely related to orthographic performance, as are many cultural factors. Above all, orthographic reform must be in line with the development of the German language as a cultural process.—H. D. Spoerl (American International College).

4228. Britt, S. H. Social psychologists and social psychology. *J. soc. Psychol.*, 1939, 10, 147-150.—The author recommends a conference of 50 or 60 social psychologists representing psychology, sociology, anthropology, psychiatry, and political science.—G. Brighouse (Occidental).

4229. Britton, K. *Communication; a philosophical study of language.* New York: Harcourt, Brace, 1939. Pp. xvi + 290. \$3.75.—Four main languages are those of (1) empirical propositions, (2) necessary principles (definitions, tautologies), (3) moral and ethical judgments, (4) poetry. Each can be described in terms of the functions language serves, viz., informative and emotive. Empirical assertions may declare (1) the physical properties of an object, (2) the emotion-arousing properties of an object, (3) the experiencing of a sensation, (4) the experiencing of an emotion, (5) the perception of some physical fact. Necessary propositions are rules of language. Moral and value judgments are uttered "in order to influence feelings or to influence conduct or both." Poetry can be called "true" only in the sense of having value for men; its "meaning" is not reference to objects but effect on the feelings. The use of the terms "truth," "reasons," and "meaning" about poetry is therefore to be deprecated as misleading.—C. J. Ducasse (Brown).

4230. Bryan, A. I. The psychology of the reader. *Libr. J.*, 1939, 64, 7-12.—(*Educ. Abstr.* IV: 284).

4231. Cadek, O. Problems of string intonation. *Proc. 1938 Music Teach. nat. Ass.*, 1939, 33, 119-125.—Cadek argues that the violin is naturally fitted to play in the Pythagorean scale.—P. R. Farnsworth (Stanford).

4232. Cantril, H., & Gaudet, H. Familiarity as a factor in determining the selection and enjoyment of radio programs. *J. appl. Psychol.*, 1939, 23, 85-94.—It was found that adults listened to special broadcasts of dramas more because they were notified in advance that the plays were to be presented than because they happened to be familiar with them. With adolescents, however, listening to a play was more common if the children had heard it before the broadcast.—E. E. Ghiselli (Maryland).

4233. Carhart, R. A survey of speech defects in Illinois high schools. *J. Speech Disorders*, 1939, 4, 61-70.—The survey was made by the questionnaire method. Returns from 405 schools (49.7%), representing 144,570 students, were analyzed. The data are presented in tabular form. In general, the results show more speech defects among boys than among girls; the percentage of speech defects decreased progressively from freshman to senior level. More than 20% of the total population studied have articulatory, voice, or rhythmic difficulties. The author deplors the fact that 57% of the schools reporting have no program for speech correction, and only 4.2% have definite corrective programs.—C. V. Hudgins (Clarke School).

4234. Chapman, D. W., & Volkmann, J. A social determinant of the level of aspiration. *J. abnorm. soc. Psychol.*, 1939, 34, 225-238.—This investigation concerned the effect upon level of aspiration of one social determinant: knowledge of the performance of other groups. In the first experiment, such knowledge was furnished the subjects before they had a first-hand acquaintance of the task. Under this condition, the aspiration-level of the subjects was changed. In the second experiment, knowledge of the performance of other groups was furnished only after considerable experience with the task. Results showed that the aspiration-level was not changed. The difference in results is discussed in terms of the concept of "frame of reference."—C. H. Johnson (Portland, Ore.).

4235. Chircev, A. Masurarea atitudinii fata de traditie di progres. (Measurement of attitude toward tradition and progress.) *Rev. Psihol.*, 1938, 1, 333-340.—The factorial analysis by Mrs. Thurstone of 12 attitude scales indicated a general factor of radicalism-conservatism. A general attitude scale elaborated according to the method of L. L. Thurstone tends to measure this general attitude. The selection of items has been based upon the criteria of equivocality and popularity. In the first case there were 40 judges of opinions. The criterion of popularity is based upon 112 subjects. The average Rumanian attitude is at class 6.00, which is the middle class. The reliability is .77, the index of reliability .87, the theoretical validity .93, and the standard error of measurement 1.7.—N. Marginean (Cluj, Rumania).

4236. Codet, H. Hygiène mentale et événements sociaux. (Mental hygiene and social events.) *Evolut. psychiat.*, 1938, No. 4, 3-17.—The author objects vigorously to the psychological evils caused by the exaltation of political activity, and opposes present day social conditions, which are creating an atmosphere of fatigue and anxiety and which cause complications that have no place in useful living.—G. Goldman (Sorbonne).

4237. Coon, C. S. The races of Europe. New York: Macmillan, 1939. Pp. xvi + 739. \$7.00.—The book is intended to give a comprehensive account of the history and relationships, both internal and external, of the white branch of mankind.

Following an introduction on the concept of race, 6 chapters are devoted to an archeological and osteological history of Europe from the earliest (Swanscombe) specimen. Chapter VIII is a summary of the principles of physical anthropology, including a description of the principal methods and culminating in the author's own classification of races. The succeeding 4 chapters present regional summaries of the principal types. There is a concluding chapter; accessory material includes appendices on the measurements of the principal cranial series cited, a glossary, lists of serials and books used, indexes, a series of 46 photographic plates illustrating major living types, with measurements for each, and numerous distribution maps and other text illustrations.—R. R. Willoughby (Brown).

4238. Coutant, F. R. Determining the appeal of special features of a radio program. *J. appl. Psychol.*, 1939, 23, 54-57.—A radio program may be evaluated by having audiences rate specific aspects of it. The list of features to be rated should be determined by pretest in order not to overlook important ones.—E. E. Ghiselli (Maryland).

4239. Curtis, A. The reliability of a report on listening habits. *J. appl. Psychol.*, 1939, 23, 127-130.—70% of a group of respondents answered in the same fashion to two mail questionnaires dealing with regularity of radio listening.—E. E. Ghiselli (Maryland).

4240. Dexter, L. A. An attempt to measure change of attitude as a result of hearing speakers. *Sociometry*, 1939, 2, No. 2, 76-83.—5-step attitude tests were administered before and after the speeches of 4 speakers at the Young People's Religious Union (Unitarian) summer conference. Shifts were studied by a technique based on that of Murphy and Likert: "the number of actual shifts was divided by the number of possible shifts in a given direction and the fraction thus obtained was subtracted from a similarly obtained fraction based upon actual and possible shift. . . . A result of .00 would indicate complete change." Changes on neutral questions produced by the four speakers were, respectively, .11, .45, .26 and .19. The results are further analyzed in terms of the speaking ability of the lecturers and the extent to which their subject matter agreed or disagreed with the formulated beliefs of the audience. The relatively small amount of change is stressed in the conclusions. It is felt that the content of the questions where great changes were produced is of primary importance. A speaker in whom the audience has confidence easily produces changes where the previous opinions are not emotionally toned or dogmatic. However, the utility of statistical analysis is questioned and the use of opinion-autobiographies to correlate with such analysis is urged.—L. J. Stone (Brooklyn College).

4241. Draser, M. Atitudinea față de naționalism și internaționalism. (The attitude toward nationalism-internationalism.) *Rev. Psihol.*, 1938, 1, 438-455.—Starting from the factorial analysis of 12 attitude scales done by Mrs. Thurstone, which has

indicated a general attitude toward nationalism-internationalism, Draser attempts to construct a general scale designed to measure this attitude. Certain innovations suggested by Marginean are also introduced. The opinions are collected from 300 students. The criterion of equivocality is based upon the judgments of 40 competent persons, while the criterion of popularity uses 112 persons. The average Rumanian attitude toward nationalism-internationalism is at class 8.4; this means that when compared to Americans Rumanian people are more nationalistic by 2.4 classes. The coefficient of reliability is .86, the index of reliability .93, the standard error of measurement 0.96, and the theoretical validity .97.—*N. Marginean* (Cluj, Rumania).

4242. Dudyha, G. J. The J-curve hypothesis: a reply to Dickens and Solomon. *Sociometry*, 1939, 2, No. 2, 52-58.—Despite the objection of Dickens and Solomon (in *Sociometry*, 1938, 1, 277-291), it is clear that Allport's discussion applies to J-curves with 50% or more conformity, "and hence if we are to define his J-curve (not the J-curve hypothesis) we must include the 50 per cent limit he imposes." Similarly, Allport's concept of the J-curve definitely states that it is of positive acceleration. Dickens and Solomon's objection that an empirical distribution would never fit Dudyha's proposed formula is considered irrelevant. Their criticism that the acceleration may be either uniform or variable, while the author's formula recognized only the former, is accepted, and it is suggested that a mathematical formula could take account of this. The value of having an index which permits comparison of institutional behavior in two groups, taking account of the whole distribution of each, is stressed. Allport defined his double-J-curve in terms of leptokurtosis, whether advisedly or inadvisedly, and the author's use of this criterion was, therefore, proper. "To do so, however, limits the hypothesis to but few distributions, and also permits us to determine, by means of kurtosis, whether a curve can be of the double-J-type."—*L. J. Stone* (Brooklyn College).

4243. Eggert, G. Nietzsche und die Individualpsychologie. (Nietzsche and individual psychology.) *Zbl. Psychother.*, 1939, 11, 195-205.—Eggert contrasts the political implications of Nietzsche's and Adler's concepts of the will to power. To the former it was an overflow of life, strength, and cosmic power. He was the bitterest enemy of democracy, socialism, communism, and Judaism, the inner unity of which he was the first to perceive and unmask. Adler, however, recognized no distinction between neurotic and political will to power, and he made the idea a world philosophy. With liberalistic nonpolitical methods, he prepared the way for collectivism, pacifism, and Marxism. "Social progress," "a peaceful realm for all peoples," complete socialization of all men, a classless society in which no man has power over others, and absence of the principle of leadership—these contradict the system of nature and human values. Race is of higher value than humanity and equality. Individual psychology is the devaluation of reality

through the ideal, and of the present in favor of the future. It has secretly twisted Nietzsche's fundamental idea into a contrary meaning.—*M. E. Morse* (Baltimore).

4244. Fagan, H. R. Methods of treatment for spastic speech. *J. Speech Disorders*, 1939, 4, 25-32.—Methods of treatment for spastic speech used by the author with success in training 9 children ranging in age from 3 to 14 years are presented. Most of the cases were complicated by aphasia or deafness along with the motor disorder. The task of the teacher, therefore, was that of initiating speech and developing language. The methods used with individual children are described in detail. A discussion of spastic speech by S. D. Robbins is appended.—*C. V. Hudgins* (Clarke School).

4245. Ferguson, L. W. The evaluative attitudes of Jonathan Swift. *Psychol. Rec.*, 1939, 3, 26-44.—On the basis of Spranger's theory that men can be understood through their evaluative attitudes, the writer secured data from Swift's works as well as from various biographies, and filled out a study-of-values blank to determine Swift's basic motives. Reliabilities of .77 for the theoretic, economic, social, and esthetic scales, .84 for the political, and .87 for the religious scale were obtained, with .80 for the whole test. The inquiry indicated that "Swift was governed first of all by religious motives, secondarily and perhaps equally by political, social and economic motives, then by esthetic, and last of all by theoretic ones."—*P. S. de Q. Cabot* (Simmons).

4246. Foley, J. P., Jr., & Anastasi, A. The work of the children's federal art gallery. *School & Soc.*, 1938, 48, 859-861.—Developed under WPA auspices, this gallery stimulates the creative and appreciative sides of children's artistic natures by providing exhibits of work done in art projects in various centers and by maintaining classes for poorer children. The natural creative urge of children is not cramped into adult patterns; the gallery provides a deterrent to maladjustment and delinquency; and opportunity is given the psychologist to study the complex problems involved in the act and the product of creative imagination.—*L. A. Averill* (Worcester Teachers College).

4247. Freud, S. If Moses was an Egyptian. . . . *Int. J. Psycho-Anal.*, 1939, 20, 1-32.—In this second article the author attempts to fit the figure of an Egyptian Moses into the framework of Jewish history, and he summarizes his conclusions as follows: "To the well-known duality of that history—two peoples who fuse together to form one nation, two kingdoms into which this nation divides, two names for the Deity in the source of the Bible—we add two new ones: the founding of two new religions, the first one ousted by the second and yet reappearing victorious, two founders of religions, who are both called by the same name Moses and whose personalities we have to separate from each other. And all these dualities are necessary consequences of the first: one section of the people passed through what may properly be termed a traumatic experience

which the other was spared. There still remains much to discuss, to explain and to assert. Only then would the interest in our purely historical study be fully warranted."—*M. H. Erickson* (Eloise Hospital).

4248. **Gaudet, H.** *The favorite radio program.* *J. appl. Psychol.*, 1939, 23, 115-126.—The rank order of preference for radio programs was found to be about the same regardless of whether the subjects listed their first three or first five favorites. However, when only the first program mentioned was taken, the rank order was somewhat different. The correlation between orders thus obtained and ratings on degree of liking was only .25.—*E. E. Ghiselli* (Maryland).

4249. **Graber, G. H.** *Die Erlösung vom Leiden.* (Release from suffering.) *Zbl. Psychother.*, 1939, 11, 142-167.—The psychology of salvation, illustrated by the ways of Christ and Buddha. Salvation (external freedom from suffering) is the highest happiness and deepest unconscious wish of every one. All great religious leaders have freed themselves from suffering and fixations and through their harmonious lives have realized adult fulfilment, adaptation to reality, and infinite relationship. Real unity with reality occurs only when the earliest causes of alienation, and hence of suffering, are found and removed. Christ unconsciously sought them in the father-son relationship, and found salvation in the Father-God, but always with ambivalence between obedient love and omnipotence-guilt. The early ego's unconscious became conscious, leading to a higher conscious level. He almost succeeded in mastering the super-ego, restoring the self's original freedom and harmony, and attaining almost complete adaptation to reality. Buddha, however, found the primeval causes of suffering, and the complete solution in the Nirvana experience (regression to the prenatal self). His regression gives greater domination than Christ's because it extinguishes all tendency to regression. Only when striving ceases are man's thought, desires, and actions completely adult. Practically, Nirvana is the removal of all hindrances and tensions, free outpouring of energy, and rest—the normal state.—*M. E. Morse* (Baltimore).

4250. **Hayakawa, S. I.** *General semantics and propaganda.* *Publ. Opin. Quart.*, 1938, 3, 197-208.—*R. L. Schanck* (Louisiana State).

4251. **Heinlein, C. P.** *The affective character of music.* *Proc. 1938 Music Teach. nat. Ass.*, 1939, 33, 218-226.—A plea for the relativistic position in the matter of esthetic value. No music bit can be abstracted from its musical setting and then properly be studied. "Any absolute value ascribed to either musical form or musical response can be but one transient, arbitrary point in a long, evolving series of human values. The only absolute which has enduring value is the fact of relativity of human affectivity to music."—*P. R. Farnsworth* (Stanford).

4252. **Hevner, K.** *Studies in expressiveness of music.* *Proc. 1938 Music Teach. nat. Ass.*, 1939, 33,

199-217.—"Music produces only general mood effects." Tempo is the most important factor, with modality perhaps second in importance, and pitch third. "Harmony and rhythm are on the whole less effective" and "the ascending or descending quality of the melody is of practically no importance in carrying the meaning." A table is offered which shows the relative weights for musical characteristics for each affective state (computed from the data of 6 experiments).—*P. R. Farnsworth* (Stanford).

4253. **Hoffmann, F.** *Sittliche Entartung und Geburtenchwund.* (Moral degeneration and decline of the birth rate.) (5th ed.) München, Berlin: J. F. Lehmanns Verl., 1939. Pp. 87. RM. 2.—.

4254. **Holter, F.** *Radio among the unemployed.* *J. appl. Psychol.*, 1939, 23, 163-169.—Since other activities are curtailed in unemployed families, radio listening is the chief recreation. The radio also functions as a means of parental control. The loss of the radio precipitates open conflicts and brings about an exodus of the children from the home and feelings of loss of status.—*E. E. Ghiselli* (Maryland).

4255. **James, A. L.** *Our spoken language.* New York, London: Nelson, 1938. Pp. 176. 2/—.—This is a "Discussion Book," written for teachers of speech and interested laymen. It sets forth the distinction between visual and aural language, describes the speech apparatus, lists the English phonemes with detailed examples, discusses accent and melody, and gives a chapter on standards. The responsibilities of speech teachers for fostering wider intelligibility are stressed.—*R. R. Willoughby* (Brown).

4256. **Johnson, W., & Inness, M.** *Studies in the psychology of stuttering. XIII. A statistical analysis of the adaptation and consistency effects in relation to stuttering.* *J. Speech Disorders*, 1939, 4, 79-86.—Data are presented which show that stutterers adapt more quickly, i.e. stutter progressively less, during five consecutive readings of a 180-word prose selection than during the reading of a 900-word passage. This indicates that the stutterer adapts more quickly to "the word content" than to "the reading situation." There is, however, a marked tendency for the loci of moments of stuttering to remain constant from reading to reading of the same material. The authors suspect "some semantic reason for reacting to those certain words."—*C. V. Hudgins* (Clarke School).

4257. **Kephart, N. C.** *Notes on social group structure in an institution for retarded children.* *Sociometry*, 1939, 2, No. 2, 95-98.—The "self-determining" cottage groups with self-government maintained at the Wayne County Training School have been previously described. An attempt is made to create close-knit social structures with high homogeneity which produce within the child himself a desire for a secure social position and which thus deter anti-social and self-centered activities. "Certain difficulties, which are extremely resistant to attack by individual treatment methods, here drop out quickly and naturally. Furthermore, where needed, the techniques of the clinical psychologist

and psychiatrist, reserved for the more intimate interpersonal relationship, become much more effective."—*L. J. Stone* (Brooklyn College).

4258. **Kirchhoff, H.** *Nachweis von Verhaltentypen an einem rassenpsychologischen Material aus Altenburg in Thüringen.* (Demonstration of types of attitudes in a study of race psychology from Altenburg in Thuringia.) *Z. Rassenk.*, 1939, 9, 131-149.—A sampling in 6 Thuringian industrial villages demonstrated that all questions have the inherent danger that the attitudes investigated have little or no psychological interest, and consequently the answers are valueless for racial typology. Questions should relate to the subject's constant practical experience, essential functions, not external matters; permit only alternative answers; and be confined to plastic situations in which attitudes would be little affected by environment. Motives should not be sought, and a questionnaire arranged according to instinct, temperament, and mode of thought is unsuitable.—*P. L. Krieger* (Leipzig).

4259. **Kramer, J.** *Der Sigmatismus. Seine Bedingungen und seine Behandlung.* (Lisping. Its conditions and treatment.) Solothurn: St. Antoniusverl., 1939. Pp. 63. Fr. 3.90.

4260. **Kutzner, O.** *Tradition und Lebensführung.* (Tradition and conduct of life.) *Z. pädag. Psychol.*, 1939, 40, 96-100.—A discussion of the nature of tradition, its relations to experience, individuality, environment, and science, and its functions in society. It relieves the struggle for existence and gives a feeling of security, especially where magical interpretations prevail. It works best among small isolated groups with unchanging needs and a uniform environment. It often represents a selection of scientific results, which is preferable to their immediate indiscriminate application. In the liberalistic age, family life, leisure, and politics were left to individual discretion. Under Nazism, however, the political is primary and the direction of private life can be misinterpreted individualistically. There must be a science of direction of life, embracing all fields. This will reduce the great numbers of personal failures which now injure the folk.—*M. E. Morse* (Baltimore).

4261. **Lazarsfeld, P. F.** *Radio research and applied psychology.* *J. appl. Psychol.*, 1939, 23, 1-7.—An introduction by the guest editor of an issue of the *J. appl. Psychol.* devoted wholly to radio research. The general problems in radio research and the contributions to be made by the psychologist are discussed.—*E. E. Ghiselli* (Maryland).

4262. **Lazarsfeld, P. F.** *Interchangeability of indices in the measurement of economic influences.* *J. appl. Psychol.*, 1939, 23, 33-45.—It was found that regardless of which index of economic status was used to classify respondents in several questionnaire surveys, the relationship between economic status and other variables being studied was about the same.—*E. E. Ghiselli* (Maryland).

4263. **Lazarsfeld, P. F.** *The change of opinion during a political discussion.* *J. appl. Psychol.*, 1939,

23, 131-147.—Data collected by personal interview with people who heard a radio address relative to his association with the Ku Klux Klan by Hugo Black, just after his appointment to the Supreme Court, revealed that the main effect of the address was to form an attitude one way or another on the part of those individuals who originally had no opinion on the issue. The discussion of the appointment of Black was apparently a socio-political issue to begin with and turned into a racial-religious one.—*E. E. Ghiselli* (Maryland).

4264. **Lentz, T. F.** *Personage admiration and other correlates of conservatism-radicalism.* *J. soc. Psychol.*, 1939, 10, 81-93.—A group of 409 subjects, equally divided as to sex, answered a 3000-item questionnaire which included a conservatism-radicalism test. The 100 scoring most conservative were then compared with the 100 scoring most radical. In comparison with the radical group, the conservatives were found to be more admiring of religious and military leaders, jazzy entertainers, and athletes; more opposed to change; more favorable to convention, routine, and the church; more prudish, timid, and inclined to moralize; more militaristic, nationalistic, and capitalistic; more superstitious and more athletic. They were less favorable to science and the arts, less tolerant of the "underdog," and less imaginative.—*G. Brighouse* (Occidental).

4265. **Loomis, C. P., & Davidson, D. M., Jr.** *Measurement of the dissolution of in-groups in the integration of a rural resettlement project.* *Sociometry*, 1939, 2, No. 2, 84-94.—Three groups were resettled in the same community. One of these had formerly lived in the same region, while the other two had been in the "dust bowl" area. All, for various reasons, were unfriendly. Integration was assisted, first, by common "enemies" among the surrounding ranchers and others; and, second, by common feeling against a city-reared resident engineer who offended by lack of knowledge of the ways of the settlers and by high-handed methods. The tendency toward integration was determined by making a sociometric chart two years after the project began, in terms of the families most frequently visited by each family. The obtained results are compared with chance expectancy and the expectancy if each family visited only among its own group. A detailed chart and tables are presented. It was found that none of the three groups was completely isolated from the other, but (for two of the groups at least) old cleavages still existed.—*L. J. Stone* (Brooklyn College).

4266. **Longstaff, H. P.** *A method for determining the entertainment value of radio programs.* *J. appl. Psychol.*, 1939, 23, 46-54.—An example of how a jury of paid listeners may be used to evaluate the entertainment value of a radio program and the major results of one such study are presented.—*E. E. Ghiselli* (Maryland).

4267. **Margineanu, E. N.** *Atitudine fata de biserica.* (The attitude toward church.) *Rev.*

Psychol., 1939, 2, 44-57.—The attitude toward church was measured with a social attitude scale, elaborated according to Thurstone's technique. The opinions were collected from 300 students, and their selection was done by 40 competent persons, mostly graduate students in psychology and sociology. After this selection on the base of the criterion of equivocality the criterion of popularity was applied, based upon 112 subjects. The first criterion selected 56 opinions, of which 6 were eliminated with the second. The remaining 50 opinions were used to construct two parallel attitude scales designed to measure Rumanian attitudes toward church. These attitudes are represented by class 8.8 (6.00 being the average). This means that Rumanians as compared to Americans are more religious by 2.8 classes. The reliability is .77, the standard error of measurement 1.7, and the theoretical validity .92.—N. Marginean (Cluj, Rumania).

4268. Meyrowitz, A., & Fiske, M. The relative preference of low income groups for small stations. *J. appl. Psychol.*, 1939, 23, 158-162.—People in the lower economic and educational levels tend to listen more to small (local) than large (network) radio stations during the day.—E. E. Ghiselli (Maryland).

4269. Miller, C. R. How to detect and analyze propaganda. New York: Town Hall, Inc., 1939. Pp. 36. \$0.25.

4270. Mosier, C. I. An example of the quantitative method in social psychology. *Proc. Fla. Acad. Sci.*, 1937, 2, 17-24.—After deriving two rational equations expressing the rise and decline of the popularity of songs, the author compares the calculated with the observed rankings (obtained from the advertising campaign of a popular cigarette). The resulting curves show in some cases a surprisingly close fit, although neither of the hypotheses advanced is verified. The author concludes that the fact that some consistency in behavior was observed even in data as unreliable as this suggests the possibility of formulating rational hypotheses in the field of social psychology, expressing these mathematically, and deducing from these hypotheses certain conclusions which may be verified.—M. Keller (Butler Hospital).

4271. Mowrer, O. H. Authoritarianism vs. "self-government" in the management of children's aggressive (anti-social) reactions as a preparation for citizenship in a democracy. *J. soc. Psychol.*, 1939, 10, 121-126.—Desirable results are reported to follow the installation of a modified form of self-government in a children's center.—G. Brighouse (Occidental).

4272. Mühlmann, W. *Methodik der Völkerkunde*. (Methodology of anthropology.) Stuttgart: Enke, 1938. Pp. 275. RM 15.80.—The differentiation between civilized and primitive races is based on the fallacious distinction between nature and culture. The subject matter of anthropology is not adequately described by any one concept like culture, history, or social science. It is all of these, and more. Nor is its subject matter isolated "form" apart from

individuals. The activities and accomplishments of historical man can be understood only as structures of the relationship between man and his environment. All forms of human existence carry the impression of individuality and are functional, i.e., the result of a mutual interaction between environment and individual. There is a special chapter on racial psychology.—P. L. Krieger (Leipzig).

4273. Murphy, G. The research task of social psychology. *J. soc. Psychol.*, 1939, 10, 107-120.—The presidential address at the annual meeting of the Society for the Psychological Study of Social Issues. The author points out that much research in social psychology has been inadequate because the investigator lacked an understanding of biology, anthropology, and history. It is essential that the public be educated to see the great potentialities of social psychology.—G. Brighouse (Occidental).

4274. Nelson, E. Father's vocation and certain student attitudes. *J. abnorm. soc. Psychol.*, 1939, 34, 275-279.—The reflection of father's vocational outlook in the attitudes of students was most strikingly seen in the case of the ministry. In none of the areas studied did vocations ranked on the basis of student attitudes fit into a socio-economic scale. The homes of dentists, journalists, lawyers, farmers, laborers, and commercial men seemed to provide the more conservative attitudes, while the more liberal students came from the homes of teachers and social workers. The most religious group in this study came from church parsonages, followed closely by students from the farms and from the homes of laborers. Father's vocation seemed to have more influence upon student attitudes than did classification by year in college.—C. H. Johnson (Portland, Ore.).

4275. Olly, F., & Smith, E. An index of "radio-mindedness" and some applications. *J. appl. Psychol.*, 1939, 23, 8-18.—Young people were found to be more radio-minded than old, and women more so than men. A strong positive association was found between radio-mindedness and actual listening. The more radio-minded people are, the less likely they are to be interested in cultural programs.—E. E. Ghiselli (Maryland).

4276. Omwake, L. Factors influencing the sense of humor. *J. soc. Psychol.*, 1939, 10, 95-104.—Two groups of high-school students, numbering 94 and 105, and equated for intelligence, were presented with 12 jokes. The presentation was visual to one group and oral (by a phonograph record) to the other, the subjects being instructed to rate each joke on its effectiveness. In general the rank order of jokes was the same for both groups. Visual presentation facilitated comprehension. Intelligence failed to show itself as a determining factor in comprehension.—G. Brighouse (Occidental).

4277. Pavelcu, V. O divergenta de pareri. (A difference of opinion.) *J. Psihoteh.*, 1938, 2, 152-168.—R. R. Willoughby (Brown).

4278. Petrescu, N. Psihologia popoarelor primitive. (Psychology of primitive peoples.) *Anal.*

Psichol., 1938, 5, 15-33.—The psychology of primitive mentality is an ethnological psychology. The difference between the evolutionary concept and the historical concept in ethnology is only one of interpretation. Both concepts show that differentiations between primitive peoples have the same basis. The essence of primitive and modern mentality is the same; the differences concern the manifestations of this essence, which manifestations depend upon culture and environment.—*N. Marginean* (Cluj, Rumania).

4279. Pratt, C. C. The relation of emotion to musical value. *Proc. 1938 Music Teach. nat. Ass.*, 1939, 33, 227-229.—A plea for the formalistic position in music. Pratt argues that since music often "sounds the way an emotion feels" we are too prone to explain all mood effects as due to associations.—*P. R. Farnsworth* (Stanford).

4280. Roos, F. J., & Heil, L. M. Measuring the listener's attitude toward a radio art appreciation course. *J. appl. Psychol.*, 1939, 23, 75-85.—The results of a questionnaire survey of the audience of a broadcasted course in art appreciation indicated that any appreciation of art that was developed was superficial. Although the listeners reported that they enjoyed the programs and intended to do something as a result of the instruction in art that they had received, they actually did very little.—*E. E. Ghiselli* (Maryland).

4281. Sargent, S. S. Emotional stereotypes in the *Chicago Tribune*. *Sociometry*, 1939, 2, No. 2, 69-75.—It is recognized that by the use of "adroit adjectives" in its news columns the *Chicago Tribune* produces the emotional reactions in its readers that it desires. To measure the influence of such terms 20 that had been applied to policies favored and 20 to policies opposed by the *Tribune* were selected and mixed with 10 neutral terms. 231 adults from a variety of groups were asked to check each term as "liked," "disliked," or "no feeling"; 6 sec. were allowed between words. Scores for each term were obtained by subtracting the dislikes from the likes and dividing by the number of S's. 10 of the "negative" terms received scores of -50 or less; 14 of the "positive" terms received scores of +50 or greater. A score of ± 50 is suggested as the criterion for stereotypy of emotional response. There were marked similarities in the groups tested, except the workers' forum, whose correlation with the scores of other groups was about .40; atypicality was shown by favorable reactions to terms like "radical" and negative ones to terms like "business men." *Tribune*-likers showed scores over ± 50 on more terms, and fewer terms were responded to with "no feeling." 12 possibly emotional terms were compared with parallel terms used by the *New York Times* in the same connection, and submitted to 60 college students. The median difference in stereotype score was 57.5 points. The possible weaknesses of the study and its value for methodology in the analysis of propaganda are briefly discussed.—*L. J. Stone* (Brooklyn College).

4282. Sayre, J. A comparison of three indices of attitude toward radio advertising. *J. appl. Psychol.*, 1939, 23, 23-33.—The attitudes of 302 respondents toward radio advertising were measured by their responses on an attitude test, their willingness to pay a license fee, and their estimate of time taken up by advertising in the average 15-minute program. It was found that those individuals who displayed a given attitude on one measure tended to display a similar attitude on the others.—*E. E. Ghiselli* (Maryland).

4283. Seashore, C. E. Music before five. *Parents' Mag.*, 1939, March, 14, 21.—(*Educ. Abstr.* IV: 252).

4284. Seashore, H. G. Variability of pitch in artistic singing. *Proc. 1938 Music Teach. nat. Ass.*, 1939, 33, 66-80.—H. G. Seashore has studied the C. E. Seashore dictum that "artistry consists in deviations from the regular, the perfect, the rigidly exact." The performances of singers were found to deviate in that (1) vibrato is employed "all of the time in all songs and on every tone"; (2) "artistic singers flat and sharp their tones continuously"; "only about 20% of the tones are sung on correct pitch throughout their duration and . . . about 25% of the tones are never on correct pitch at all"; (3) there are transitional errors. "About 65%, or two-thirds, of all tones are characterized by instable, inflected, flexible pitch patterns at their inception."—*P. R. Farnsworth* (Stanford).

4285. Seligman, H. J. Race against man. New York: Putnam, 1939. Pp. 260. \$2.75.—An anthropological study showing that historic background is a determinant of social behavior and that behavior changes with social status regardless of race.—*R. R. Willoughby* (Brown).

4286. Singer, G. H. The influence of sudden oppression on a racial minority. *J. soc. Psychol.*, 1939, 10, 127-145.—There were three groups of German Jews prior to 1933—the assimilated, the liberal, and the non-assimilated. The effects of anti-Semitism have been economic oppression, an interruption of professional relations, and a rupture of social intercourse with non-Jews. The last named effect has been particularly objectionable to the assimilated group. Reactions of Jews to oppression have included: regression, negative attitudes to new work, schizoid reactions, excitability, a need for affection at any price, and in some a successful compensation, with greater versatility and initiative. The author suggests as possible readjustments a revival of religious feeling, intensification of home and family ties, and increased sensitivity to all suffering.—*G. Brighouse* (Occidental).

4287. Sinohara, M. Weib und Liebe. (Woman and love.) *Z. Psychoanal.*, Tokyo, 1939, 7, Nos. 3-4.

4288. Small, A. The violin in the laboratory. *Proc. 1938 Music Teach. nat. Ass.*, 1939, 33, 88-110.—Experimental studies indicate that the following conclusions hold for the violin and presumably for all of the stringed instruments of the viol type in the contemporary symphony orchestra: "The chief

factors with which the violinist controls intensity of tone are bow speed and bow distance (point of contact). Those by which he controls tone structure and resultant timbre are mainly bow pressure and bow distance, although bow speed is somewhat effective in parts of its range. The relationship between the effects of bow pressure and bow speed on structure is such that a *reduction* in pressure produces general results similar to those produced by an *increase* in speed."—P. R. Farnsworth (Stanford).

4289. Smirnova, A. M. *K voprosu o klassifikatsii rasstroistv rechi.* (Contribution to the problem of the classification of speech disorders.) *Sovetsk. Psikhonevrolog.*, 1938, 14, 47-55.—A classificatory scheme of speech disorders is offered, worked out on the basis of experience with a large number of cases of 7½ to 10-year-old children: (1) Disorders on the basis of general motor inadequacies: logoneuroses; dyslalias. (2) Somatic diseases before speech develops: delayed development of speech; lispings; infantile speech; dyslalias. (3) Congenital underdevelopment of speech with general motor inadequacies: alalias; lispings; dyslalias; poor articulation; stuttering. (5) Speech defects in connection with various endocrinopathies: tachylalias; stuttering, dyslalias. (6) Accompanying psychoses and psychoneuropathies: stuttering; tachylalias; mutisms; disturbances of the voice. (7) Psychic traumas: mutisms; disturbances of articulation and voice; logoneuroses. (8) Defects in the development of the organs of speech: rhinolalias; difficulties in articulation; dyslalias. (9) Disturbances of hearing: dyslalias; underdevelopment of speech. (10) Improper speech training: dyslalias; logoneuroses.—L. J. Stone (Brooklyn College).

4290. Smith, E. A difficulty in the feature-analysis of a radio program. *J. appl. Psychol.*, 1939, 23, 57-60.—It is difficult to evaluate specific features of a radio program by means of audience ratings, since listeners' general impressions of a program will affect their answers to questions concerning specific features.—E. E. Ghiselli (Maryland).

4291. Stanton, F. Notes on the validity of mail questionnaire returns. *J. appl. Psychol.*, 1939, 23, 95-104.—The replies of the first half of the respondents to a mail order questionnaire were found not to differ significantly from those of the second half. The use of follow-up questionnaires was found to increase the number of respondents markedly.—E. E. Ghiselli (Maryland).

4292. Stanton, F. Factors involved in "going on the air." *J. appl. Psychol.*, 1939, 23, 170-192.—To present a brief outline to the social scientist of some of the things known regarding the radio audience and the use which advertisers make of these data, this article is organized around the steps taken by a radio sponsor once he has decided to "go on the air."—E. E. Ghiselli (Maryland).

4293. Stinchfield-Hawk, S. S. The year 1938 in speech correction. *J. Speech Disorders*, 1939, 4, 87-95.—The author reviews briefly the books and journal articles which appeared during the year in

the field of speech correction and in related fields.—C. V. Hudgins (Clarke School).

4294. Strachey, J. Preliminary notes upon the problem of Akhenaten. *Int. J. Psycho-Anal.*, 1939, 20, 33-42.—The author reviews the discoveries made in relation to Akhenaten since Abraham wrote on the subject in 1921, summarizes this new material, and offers the hypothesis that Akhenaten was born with an unusually large feminine component in his constitution, to which he reacted along lines which would be termed "paranoid" today. As a consequence of his powerful position, he was able to react to his situation by founding a monotheistic religion and imposing it upon his subjects. The author feels that it may be possible that the accident of this constitutional endowment in a most powerful person may be responsible for the first emergence of monotheism in the history of the human race.—M. H. Erickson (Eloise Hospital).

4295. Suchman, E. A. Radio listening and automobiles. *J. appl. Psychol.*, 1939, 23, 148-157.—A study of the records of two taxicab companies revealed that there was no increase in accident rate after installation of radios in the cabs. Observation of the behavior of the passengers showed more listening on long rides and at night.—E. E. Ghiselli (Maryland).

4296. Tinker, M. A. Speed versus comprehension in reading as affected by level of difficulty. *J. educ. Psychol.*, 1939, 30, 81-94.—The study was designed to show the relation between speed and comprehension by measuring rate of work and degree of comprehension on the same or strictly comparable material, and by employing as reading material tests ranging from very easy to very difficult. Speed is defined as rate of comprehension. Six tests of reading situations were employed, each of which yielded three different scores. The three scores were: number of items done correctly in standard time; number of items attempted in standard time; and total time taken to complete the test. The number of items attempted was found to correlate consistently high with the time taken to complete the test. Either of these scores may be used as a rate of work measure. Correlation between rate and comprehension is very high for easy material, but decreases as difficulty increases. "The data warrant the conclusion that there is an intimate relationship between speed and comprehension in reading when the textual material is within the reader's educational experience."—R. M. Bellows (Maryland).

4297. Todoranu, D. Masurarea mediului familial. (The measurement of family environment.) *Rev. Psihol.*, 1938, 1, 294-319.—A questionnaire designed to measure the influence of family upon personality, containing 20 items, was applied to 778 students of the University of Cluj. The reliability of the test was $.71 \pm .03$; its validity was controlled by the criterion proposed by Sims. Two vocational groups (agricultural and professional) are compared, and found to be very different. There seems to be a very large difference between students coming from a

rural environment and students coming from an urban environment. There also are some interesting differences from one faculty to another; the average social-economic environment of students of medicine is 61.68, while those of students of law and sciences are 53.40 and 55.60.—*N. Marginean* (Cluj, Rumania).

4298. *Trendelenburg, W.* Untersuchungen zur Kenntnis der Registerbruchstellen beim Gesang. II. Stimmklangstörungen bei Wirkung des natürlichen Ansatzrohres. (Studies of the breaks in the register of the singing voice. II. Interference of the trachea with the tone of voice.) *S. B. preuss. Akad. Wiss.*, 1938, 21. Pp. 40.—Frequency disruptions which occur in the laryngeal tones when the trachea is used in changing from one vocal position to another are to be explained by the simultaneous innervation of the laryngeal muscles. Children's and women's voices undergo noticeable frequency differences when changing from the middle to the head register. Breaks in the register are caused by the modification in the inner structure of the volume and tension relations in the larynx occurring at the borderline between different registers.—*P. L. Krieger* (Leipzig).

4299. *Vernant, J.* Intelligence et affectivité. (Intelligence and affectivity.) *Rev. phil.*, 1939, 64, 165-189.—Taking up *Levy-Bruhl's* book, "L'expérience mystique et les symboles chez les primitifs" (Paris: Alcan, 1938), *Vernant* analyzes it for problems of general psychological and philosophical interest. In these studies of a sociologist who has limited himself to the presentation of the meaning of his data, *Vernant* endeavors to find the deep-lying significance of certain fundamental processes of human thinking.—*G. Goldman* (Sorbonne).

4300. *Voelker, C. H.* Two surveys of defective speech in a cultural college. *J. Amer. Ass. colleg. Registr.*, 1938, 14, 39-42.—A study by the speech clinic of types of speech and voice disorders among Dartmouth College students revealed 12-18% of speech affliction in the student body. Stuttering was found in from 1.3 to 2.4%, with the following disorders, or their subtypes, appearing in the following order: dyslalias, dysphonias, dysrhythmias, and dysphemias. The survey covers two academic years. No "particular psychological and health configurations in characterizing the expectancy of speech disorders at Dartmouth" can be objectively indicated.—*D. Bailey* (Mary Baldwin College).

4301. *Wagner, I. F.* Articulate and inarticulate replies to questionnaires. *J. appl. Psychol.*, 1939, 23, 104-115.—Respondents who gave lengthy replies to free-comment questions were found not to differ in certain habits, preferences, and other characteristics from those who did not give such verbose responses. Those respondents who gave a lengthy reply on one free-comment question tended to do likewise on another.—*E. E. Ghiselli* (Maryland).

4302. *Wagner, I. F.* Current radio research in universities. *J. appl. Psychol.*, 1939, 23, 192-206.—Current research in the field of radio at six uni-

versities in the United States and one in Scotland is summarized.—*E. E. Ghiselli* (Maryland).

4303. *Wagner, I. F., & Erb, M.* A bibliography on program preferences of different groups. *J. appl. Psychol.*, 1939, 23, 187-191.—*E. E. Ghiselli* (Maryland).

4304. *Wannemaker, C.* The meaning and significance of social adjustment. *J. Hlth phys. Educ.*, 1939, Jan., 10, 12.—(*Educ. Abstr.* IV: 288).

4305. *Wiebe, G. D.* A comparison of various rating scales used in judging the merits of popular songs. *J. appl. Psychol.*, 1939, 23, 18-22.—When the popularity of songs was evaluated on a 10-step rating scale the rank order was found to be the same as that yielded by a 4- or a 2-step scale.—*E. E. Ghiselli* (Maryland).

4306. *Zeddies, A.* Leitlinien der Menschenbehandlung. (Guiding principles for the management of people.) Bad Homburg: Siemens-Verlagsges., 1939. Pp. 67. RM. 1.75.

[See also abstracts 3917, 3920, 3927, 3935, 3965, 4037, 4057, 4064, 4072, 4119, 4153, 4154, 4167, 4181, 4185, 4192, 4199, 4200, 4202, 4204, 4207, 4208, 4216, 4320, 4375, 4384, 4401, 4402, 4405, 4406, 4412, 4415, 4420, 4421.]

CRIME AND DELINQUENCY

4307. *Bell, N.* [Ed.] The offender in the community; yearbook of the National Probation Association. New York: National Probation Association, 1939. Pp. 396. \$1.25.

4308. *Gereke, —.* Zur Frage der Rückfallsprognose. (The problem of predicting recidivism.) *M Schr. KrimBiol.*, 1939, 30, 35-38.—The author presents tables with nine points for predicting recidivism. These permit an individual evaluation of different factors in each case.—*P. L. Krieger* (Leipzig).

4309. *Habel, H.* Die Bedeutung des Lebenswerkes von Johannes Lange für die Entwicklung der kriminalbiologischen Forschung. (The significance of the life work of Johannes Lange for the development of the biological study of crime.) *M Schr. KrimBiol.*, 1939, 30, 1-8.—*P. L. Krieger* (Leipzig).

4310. *Hentig, H. v.* Das Leugnen. (The denial.) *Schweiz. Z. Strafrecht*, 1937, 51, 201.—The position of the innocent person before the judge is more difficult than that of the guilty one, who is precisely informed of the issues involved even before the first question has been asked. To strengthen his endangered position, a falsely accused person uses frequent denials in the face of apparent evidence. It depends on the judge's personality and psychological tact whether he can stimulate a readiness to confess without inner and outer compulsion.—*P. L. Krieger* (Leipzig).

4311. *Höchst, K.* Die Bedeutung des präkriminalen Lebens für die Verbrechensverhütung. (The significance of pre-criminal life for prevention of

crime.) Bielefeld: Beyer & Hausknecht, 1938. Pp. 27.

4312. Hurley, H. A. Vocational adjustment of ex-prisoners in the District of Columbia. Washington, D.C.: Catholic Univ. America, 1938. Pp. 230. \$2.00.—R. R. Willoughby (Brown).

4313. Kapp, F. Ein angstgehetzter Betrüger. (A swindler harassed by fear.) *M Schr. KrimBiol.*, 1938, 29, 574-581.—The author offers as a contribution to sex pathology and criminal psychotherapy the case history of a restless, emotional psychopath whose first offense brought in its train an avalanche of other crimes. He constantly changed his place of residence and dwelling, and was afraid to open his own mail. Now rehabilitated, employed, and a total abstainer, he appears to have recovered satisfactorily.—P. L. Krieger (Leipzig).

4314. Kruse, H. Die Straffälligkeit der Jugend in Hamburg 1937. (Juvenile delinquency in Hamburg during 1937.) *M Schr. KrimBiol.*, 1939, 30, 92-96.—An increase of 78% in juvenile delinquency in 1937 as compared with 1934 is to be explained by stricter legal action and a changed legal philosophy. Among women, 62% of all crimes were committed by domestics who were intellectually below the average of other employed females. The percentage of repeaters was 2.62%, that of recent settlers in the city 3.1%. Homosexuality was the cause for arrest in 11% of the cases among male delinquents, who often were ethically unresponsive, emotional youngsters who had become habitual prostitutes at the age of 16 or 17 after occasional experimentation during puberty. Burglary and offenses against property became less frequent, embezzlement more frequent as compared with former years. In 17% of the cases prison sentences were given. Motherless waifs constituted 6.2%, children of divorced parents 7.8%, and those of estranged parents 2.9% of the cases. There was an increase in the proportion of pupils from special schools to 6.7%, in that of high school pupils to 8.6%, and a decrease in the proportion of public school children to 84.6% of the total.—P. L. Krieger (Leipzig).

4315. Liszt, E. v. Jugendgerichtshilfe. (Aid to juvenile delinquents.) *M Schr. KrimBiol.*, 1939, 30, 96-101.—The organization established in Weimar to aid juvenile delinquents has during the past 20 years of its existence adhered to the principles of soliciting aid among all levels of the population, providing training for its employees in special classes and monthly meetings, emphasizing preventive work, and co-operating with psychiatrists and employment services. A similar organization in Paris reports excellent results from sending to the country children in danger of becoming delinquents. In 1937 this group had 65 remissions, 24 to homes for normal children, 15 to homes for retardates, and 26 to their own families. The selection of a suitable trade seems the best means of social rehabilitation. Alcoholism, too large families, and family quarrels are contributing factors to juvenile delinquency.—P. L. Krieger (Leipzig).

4316. Marginean, N. Aspectul social al crimei in America. (Social aspect of crime in U.S.A.) *Rev. Psihol.*, 1938, 1, 341-352.—A brief review of the research work of the Chicago Institute for Juvenile Research and of the Judge Baker Foundation.—N. Marginean (Cluj, Rumania).

4317. Metelmann, K. Die Typenlehre der pädagogischen Charakterologie Gerhard Pfahlers und ihre Brauchbarkeit für die Kriminalbiologie. (The theory of types in Gerhard Pfahler's educational characterology and its usefulness for criminal biology.) *M Schr. KrimBiol.*, 1938, 29, 565-574.—Pfahler's types A-M are represented most nearly by the following individuals: A, professional burglars, dangerous political criminals; B, the same categories, but more deliberate and cautious; C, hold-up men and other cold-blooded criminals. These three groups possess considerable vital energy as compared with the next three. D, swindlers, procurers, blackmailers; E, panhandlers and others with similar antisocial occupations; F, tramps and introverted "hoarding" thieves. Types G and K are victims of circumstances who commit occasional crimes but have a pronounced better conscience, while H and L represent types which know how to utilize situations. Type J is a scheming, versatile, commercial swindler who looks for opportunities, and M represents the weakling who gives and takes little and is not really a criminal type.—P. L. Krieger (Leipzig).

4318. Roesner, E. Kriminalstatistische Umschau. IV. Oesterreichs Justiz 1936. (A statistical survey of criminality. IV. Austrian justice in 1936.) *M Schr. KrimBiol.*, 1938, 29, 581-591.—Significant regional differences were found in the distribution of vagrancy and panhandling. Larceny and offenses against the authorities occurred with the greatest frequency in Upper Austria and were rarest in Vienna, which excelled in embezzlement.—P. L. Krieger (Leipzig).

4319. Roesner, E. Internationale Mordstatistik. (International homicide statistics.) *M Schr. KrimBiol.*, 1939, 30, 65-88.—The author criticizes the proposals made by different countries and submits his own technique for arriving at an international exchange of homicide statistics. These data would be particularly useful in the development of a typology of murderers which would be acceptable to penal psychologists.—P. L. Krieger (Leipzig).

4320. Rusche, G., & Kirchheimer, O. Punishment and social structure. New York: Columbia Univ. Press, 1939. Pp. 282. \$3.00.

4321. Schreck, A. Ein Fall von Entwicklungsstörungen und Hang zu krimineller Betätigung als Folge eines Unfalls. (A case of interrupted development and a tendency to criminality as results of an accident.) *M Schr. KrimBiol.*, 1939, 30, 89-92.—The case history of a person whose normal development was interrupted in his school days after a cerebral injury which left him an intellectual and moral imbecile with a strong tendency toward criminal behavior. A process of mental and physical

improvement, the nature of which remained unknown, set in 20 years after the accident and restored the patient to partial normality.—*P. L. Krieger* (Leipzig).

[See also abstracts 4047, 4191.]

INDUSTRIAL AND PERSONNEL PROBLEMS

4322. Benari, L. *Selectia profesională in Franța*. (Vocational selection in France.) *J. Psihoteh.*, 1938, 2, 87-96.—The main institutions for vocational selection in France are: (1) the psychological laboratory of "La Société de Transport de Paris," headed by Lahy, in which drivers of busses are examined; (2) the psychological laboratory of the Northern railroads, also headed by Lahy; (3) the biotypological laboratory of the government railroads, organized by Laugier; (4) the psychological laboratory of Toulouse, designed to select sailors; (5) the psychological laboratory of the department of aviation; and (6) the psychological laboratory of Saint-Denis, near Paris, designed to select typists.—*N. Marginean* (Cluj, Rumania).

4323. Collier, H. E. *The mental manifestations of some industrial illnesses*. *Occup. Psychol.*, Lond., 1939, 13, 89-97.—Industrial disease is the result of a complex of physical, personal, and social factors; each case should be studied "both upon the physical plane and upon the mental plane." The mental manifestations of illness are not necessarily mental in origin, nor are the physical manifestations necessarily of physical origin. Both mental and physical factors are in operation in all cases. A few illustrations of mental symptoms with definite physical causes will serve to show that mental conditions are not necessarily the causes of mental disturbances: gastric and duodenal ulcers, which are common among motor transport workers, may be a sequel of prolonged indigestion, and that may be due to functional causes or to constitutional factors; unrest is common among spray-painters, and is usually caused by mental factors, but a new air-exhaust system often removes unrest from such a group. It is also known that industrial solvents can produce the characteristic subjective symptoms associated with emotional disturbances: methylene dichloride produces bad temper, irritability, and sleeplessness; benzol produces anemia; carbon tetrachloride produces liver disorders; carbon monoxide produces severe frontal headache, nausea, and an incapacity to evaluate one's actions; mercury produces irritability, depression, anxiety, and sleeplessness; and manganese produces languor, lethargy, muscular cramps, and abnormalities of gait. Thus definite physical toxins are the chief factor in the etiology of types of illness which may be mistaken for physical illness.—*H. Moore* (Mt. Holyoke).

4324. Craemer, H., & Schlegel, E. *Charaktereignung, Lenkbarkeit und Berufsauslese bei den Kinderpflege- und Haushaltgehilfinnen*. (Character, guidability and selection of nursemaids and domestic servants.) *Z. angew. Psychol.*, 1938, 55, 334-372.

—The authors emphasize the need of careful selection and training of girls who wish to prepare themselves as nursemaids and domestic servants. As teachers they observed 150 girls, aged 14-18, over the period of 2 years required for this training. On the basis of outstanding characteristics they were classified into 5 groups: the independent, the adaptable, the dull, the egocentric, and the weak-willed. The adaptable, it was found in a follow-up, were the most desirable and successful.—*G. F. J. Lehner* (Vermont).

4325. DeSilva, H. R., Claffin, R. G., & Simon, W. J. *Cause of drivers' accidents*. *Safety*, 1939, Feb.—The results of a follow-up study on 111 truck drivers who had been put through a driver clinic show that the defects of skill and attitude revealed by the clinical examination can, when properly presented to the drivers, be comprehended and put into use to effect a marked reduction in accidents.—*M. Keller* (Butler Hospital).

4326. DeSilva, H. R., Claffin, R. G., & Simon, W. J. *Making safer bus drivers*. *Transit J.*, 1938, Nov., 1-3.—This is a report of a diagnostic and educational study of 163 bus drivers from one garage of the Boston Elevated Railway. Tests of accelerator reaction time, braking reaction time, steering coordination, vigilance, glare and night vision, visual keenness, depth perception, astigmatism, color vision, tunnel vision, and speed estimation were administered, followed by a 10-15 minute educational interview with each driver. It was found that the highest tenth of the drivers (according to composite profile scores) had had 21.2% less chargeable accidents than the lowest tenth. A comparison of the average yearly accident rate for the year following the tests and the three preceding years showed an improvement with respect to chargeable accidents of 28.8%.—*M. Keller* (Butler Hospital).

4327. DeSilva, H. R., & Frisbee, W. H. *Uncontrolled pedestrians*. *Police publ. Safety Rep.*, 1938, June, 10-11.—A review of available statistics from various parts of the country indicates that pedestrians are involved in the majority of fatal accidents. Most of these pedestrians are elderly people and in the majority of cases are at fault. Possible causes of pedestrian accidents, such as lack of judgment, ignorance of the difficulties facing the driver, and defects of vision and hearing are considered. The need for educating pedestrians is emphasized.—*M. Keller* (Butler Hospital).

4328. Feldman, H., & Smith, D. M. *The case for experience rating in unemployment compensation and a proposed method*. New York: Industrial Relations Counselors, Inc., 1939. (Industrial Relations Monographs, No. 1.) Pp. 74. \$1.00.

4329. Ferrari, C. *Industrial psychology in Italy*. *Occup. Psychol.*, Lond., 1939, 13, 141-151.—Two scientists, Agostino Gemelli and Mario Ponso, are chiefly responsible for recent progress in industrial psychology in Italy. Current activities in different centers are as follows: *Milan* (Gemelli): Industries have applied to the psychology departments for help;

in consequence, selection tests have been devised for certain cotton mills, for spinners in artificial silk mills, and for wool sorters and carders; research work is going on in an analysis of manual ability, in the selection of aeroplane pilots, in the effects of enforced rhythm patterns, and in the construction of machines which will have three or four speeds and rhythmical patterns to which workers can easily adapt themselves. *Rome*: Mario Ponzo, who succeeded De Sanctis in 1931, has worked with the General Fascist Confederation of Industry in establishing a new center for industrial psychology, has co-operated with the Ministry of Education in collecting occupational data and in organizing vocational guidance centers, and has conducted research work in aptitude for, and susceptibility to training in, the fields of millinery, silk manufacture, hotel work, and nursing, in addition to continuous research in problems in the Italian State Railways. *Florence*: The University Institute has worked on the problem of motor co-ordination in the selection of wireless operators and on sensory-motor co-ordination in the selection of motor and tramway drivers, and has aided in the construction of about 2500 vocational profiles annually. *Turin*: Since January 1935 a center for work studies under the direction of A. Venturi has directed its attention to workers—the effect on them of normal work, of interruptions in work, of ill health, and of injuries. A guidance service for pupils of professional schools is also given. In addition to these, the Air Ministry employs a consultative committee of four medico-legal institutes for selection and training purposes; as a result of psychotechnical investigations special laws regulating phases of industry have been instituted, sometimes at the instigation of workers' syndicates. —H. Moore (Mt. Holyoke).

4330. Lemke, R. Über die neurologische und charakterologische Beurteilung der Fliegertauglichkeit an Hand von 2000 Untersuchungsbefunden. (The neurological and characterological estimation of aviation ability, based on 2000 examinations.) *Luftfahrtmedizin*, 1939, 3, 73-81.—Constitution alone does not permit an immediate conclusion as to a student's nervous structure. Even a typical asthenic may have a resistant nervous system. Signs of degeneration are decidedly more frequent among the hereditarily burdened than among other fliers. Students having adherent ear lobes often show anomalies in their neurological status. Signs of hysteria or neurasthenia obviously disqualify applicants.—P. L. Krieger (Leipzig).

4331. Marginean, N. Domeniul psihologiei aplicate. (The field of applied psychology.) *Rev. Psihol.*, 1939, 2, 12-34.—The field of practical applied psychology includes (1) the applications of psychology to the scientific management of labor in industry, commerce, administration, transportation, or economic psychology, (2) the application of psychology to education, medicine, law, politics, and the army, (3) medical psychology, (4) juridical psychology, (5) political psychology, and (6) military psychology. The field of theoretical applied psychology includes

the applications of psychology to the psychology of art, language, folklore, history, etc. The paper discusses the main topics of these branches of applied psychology, as they are developed in a university course during a period of four years.—N. Marginean (Cluj, Rumania).

4332. McGregor, D. The attitudes of workers toward layoff policy. *J. abnorm. soc. Psychol.*, 1939, 34, 179-199.—During a series of layoffs in a plant employing 7000 workers, a questionnaire survey was made of the attitudes toward layoffs. There was little agreement concerning the ideal method for selecting those to be laid off when a layoff is necessary. There is a tendency for workers to consider as ideal that form of policy which would best protect their own jobs. Although 90% were members of a union, there did not appear to be a strong desire to have the union administer the layoff policy, normally considered a prerogative of the management. 97% of the group favored some form of work-sharing. A demand for an unambiguous and inflexible policy by another group of union men was coupled with a suspicious attitude toward management, in this instance due to favoritism by the foreman in determining those workers retained during partial layoffs.—C. H. Johnson (Portland, Ore.).

4333. Osgood, C. E., Allen, C. N., & Odbert, H. S. The separation of appeal and brand-name in testing spot advertising. *J. appl. Psychol.*, 1939, 23, 60-75.—By means of immediate recall of trade names, an evaluation was made of the effectiveness of ten different sales appeals, which were presented auditorially.—E. E. Ghiselli (Maryland).

4334. Păsculescu, G. Psihotehnică asociationistă sau psihotehnică structuralistă-totalitară? (Associationistic psychotechnics or structuralist-totalitarian psychotechnics?) *J. Psihoteh.*, 1939, 3, 15-22.—Applied psychology, as opposed to theoretical psychology, seems to incline more toward an analytical conception of personality, while theoretical psychology tends toward explaining and understanding personality as a totality or Gestalt. The author believes that the orientation of theoretical psychology is better and that it must be imitated by applied psychology. Psychological applications in vocational guidance and labor are to be based upon the personality as a whole. It is demonstrated that Rumanian applied psychologists are without exception moving in this direction.—N. Marginean (Cluj, Rumania).

4335. Starr, R. B., & Greenly, R. J. Merit rating survey findings. *Person. J.*, 1939, 17, 378-384.—Questionnaires concerning rating scales were sent out to 64 companies representative of major branches of industry. Of the 44 replying, only about one third were using rating scales. The items rated, with their weights, are tabulated. The ratings by different departments are not comparable. Many raters should be used instead of one, to compensate for the subjectivity of most of the ratings. Two suggestions are given for avoiding the "halo" effect. Merit rating may help management by providing a

basis for promotion, demotion, or transfer, determining training needs for all employees, selection of employees for special training, increasing over-all plant efficiency, and reducing costs.—*M. B. Mitchell* (Psychopathic Hospital, State University of Iowa).

4336. **Vogeler, R. F.** A job information training program for interviewers. *Employment Serv. News*, 1939, 6, No. 1, 5-7.—The training program used in the Maryland State Employment Service is described briefly. First, the interviewer is assigned to read a description of the processes of the industry scheduled for study. Next, a specially prepared staff member leads a discussion, emphasizing the key occupations and the type of workers required. Third, application cards from the active files are discussed in relation to the job requirements. The program may be supplemented by having the interviewers visit operating establishments. It is helpful to have on the staff some persons trained in job-analysis techniques.—*G. R. Thornton* (Nebraska).

4337. **Zappa, J. A.** Civil service manual; mental tests for federal examinations. Brooklyn, N. Y.: Civil Service Research Publications, 736 Washington Avenue, 1938. Pp. 141. \$2.00, paper.

[See also abstracts 4084, 4107, 4170, 4282, 4295, 4340, 4380, 4382.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

4338. **Ade, L. K.** The language of modern education. *Bull. Dept. publ. Instruct. Pa.*, 1939, No. 17, 1-46.—Approximately 200 educational terms in current usage are defined in terms of modern thought and educational practice.—*M. Keller* (Butler Hospital).

4339. [Anon.] The implications of research for the classroom teacher. Washington, D. C.: National Education Association, 1939. Pp. 318. \$1.00.—(*Educ. Abstr.* IV: 290).

4340. **Arcan, T.** Activitatea oficiilor de orientare profesionala din Ardeal. (The activity of the vocational guidance offices of Transylvania, Rumania.) *Rev. Psihol.*, 1939, 2, 58-79.—The vocational guidance offices of Transylvania were founded at the end of 1937 and began their activity February 1, 1938. They are located in 4 principal towns (Arad, Brasov, Cluj, Timisoara) and depend upon the Psychotechnical Institute of Cluj, which depends in its turn upon the Department of Labor at Bucharest. They are all state institutions. During 1938 3944 individuals were completely examined, namely 3300 boys and 644 girls. Their ages varied from 14 to 16 years at the time when they left public schools and entered jobs as apprentices. The psychotechnical examination is to help them in choosing the right job. The examination is compulsory in the sense that no factory or small industrialist can receive apprentices without a psychotechnical certificate. The subjects, however, are not compelled to choose only the jobs which have been advised. They can

choose another if the factory or the employer will receive them. As a rule, however, employers and factories receive only the candidates recommended for their special jobs. In order to avoid quarrels and mistakes the offices recommend the job only after much consultation with the child and his parents. The final act of recommending one job or another is based upon (1) school records, as well as the social and economic status of the candidate, (2) psychological examination, (3) morphological and physiological examination, and (4) medical examination. At the end of the year there were founded two other offices, in Oradea and Sibiu.—*N. Marginean* (Cluj, Rumania).

4341. **Barr, A. S.** The systematic study of teaching and teaching efficiency. *J. educ. Res.*, 1939, 32, 641-648.—There is a dearth of information regarding the teacher and the qualities necessary for her success. The Wisconsin Study of Teaching Ability hopes to solve some of these problems by an intensive case study of 2500 pupils and 260 rural school teachers of the social studies at the junior high school level.—*S. W. Fernberger* (Pennsylvania).

4342. **Brandza, E. M.** Aptitudinea didactica si selectionarea profesorului. (Teaching ability and the selection of teachers.) *J. Psihoteh.*, 1939, 3, 1-14.—The paper aims to define (1) the nature of teaching ability, and (2) the possibility of its examination in order to use it as a criterion in teacher selection. Teaching ability requires: (1) prestige and authority, (2) intelligence and ability to apply the program established by the curriculum, (3) ability to stimulate the attention of children, (4) interest in children and school, (5) diligence, (6) critical ability, and (7) organizing power. The selection of teachers must be based upon two criteria: (1) the capacity to master content and special ideas, and (2) the ability to teach them to other people. Practical hints are given in regard to this last criterion of teaching ability.—*N. Marginean* (Cluj, Rumania).

4343. **Cârstoiu, S.** Psihotehnica la oficiul universitar. (Psychotechnics in the university vocational guidance office.) *J. Psihoteh.*, 1938, 2, 140-151.—General considerations concerning the organization and the function of the new vocational guidance office of the University of Bucharest.—*N. Marginean* (Cluj, Rumania).

4344. **Christensen, A. M.** Traits of college-going, employed, and unemployed high school graduates. *Sch. Rev.*, 1938, 46, 597-601.—Groups of college students, employed high school graduates, and unemployed high school graduates, each consisting of 80 men and 80 women, were compared as to their standings on the Bernreuter personality inventory. In self-sufficiency and extrovert tendency the order was college, employed, and unemployed, although the differences were not statistically significant. The college group was significantly more dominant than the unemployed and the employed were somewhat more dominant than the unemployed. No evidence of causal relationships is available on the

basis of the results obtained in this study.—D. Bailey (Mary Baldwin College).

4345. Cole, R. C. **Evaluating a boys' club guidance program.** *Occupations*, 1939, 17, 694-698.—100 of the members of the Worcester Boys' Club who asked for vocational guidance were checked up 5 years later. They were compared with a control group of 100 members of the club who had received no guidance. The two groups were similar in age, IQ, school grades, health, parental background, and nationality in 1931. In 1936 the guided group excelled in length of school attendance, grades, level reached, occupational status, job satisfaction, earnings, and extent of employment. This is attributed to the guidance, which "comprises a broad service of individual and group counseling, psychological and aptitude testing, self-analysis, exploratory classes and other job-tryout opportunities, placement, and follow-up."—H. Schlosberg (Brown).

4346. Cweigenhaft, W. [Motives in choosing vocations.] *Życie Młodych*, 1938, 7, 54 ff.

4347. Davies, J. G. W. **Some typical problem cases.** *Occup. Psychol.*, Lond., 1939, 13, 98-109.—To the vocational counsellor there are two types of problem cases: (1) those who are difficult to advise because circumstances in their environment prevent them from adopting justifiable vocational plans, (2) those whose future possibilities are not easy to predict because of some emotional difficulty. In the first group are those who grow up in an "ugly duckling" environment, those who come from families with too low a family income for the children to realize their possibilities, and those who come from the "security-monger" class, in whom lifelong habits of steadfastness and security create antipathy to an eagerness on the part of the son for creative adventurous work. In the second group are the "can't's" and the "sha'n't's." The former are unduly submissive, and one cannot predict to what extent they will become positive, decisive, and responsible; the latter are of a rebellious and escapist nature, and are passing through a phase the outcome of which is uncertain. The first group presents a family problem which can be solved only in consultation with the different members; it may be possible to educate the second group into their potentialities.—H. Moore (Mt. Holyoke).

4348. Dumitriu, V. **O fișă biotipologică pentru studiul profesiunilor.** (A biotypological inventory for the study of professions.) *J. Psihotek.*, 1939, 3, 23-37.—A translation, followed by some commentaries, of the biotypological inventory designated for the study of professions in the vocational guidance practice of H. Laugier and D. Weinberg (Fiche biotypologique pour l'étude des professions, *Biotypologie*, 1938, 6).—N. Marginean (Cluj, Rumania).

4349. Edmiston, R. W. **Examine the examination.** *J. educ. Psychol.*, 1939, 30, 126-138.—Directions to be read by the student before taking an examination, which include such items as where to place the name, legibility, use of terms, under-

scoring important parts of answers to essay questions, etc., are important, since they contribute to validity of the examination. Statistically significant differences were found in one situation between scores on papers marked with and marked without examinee's name.—R. M. Bellows (Maryland).

4350. Ene, D. **Higiiena mintală și orientarea profesională în Franța.** (Mental hygiene and vocational guidance in France.) *J. Psihotek.*, 1938, 2, 81-86.—The review concentrates especially upon the activity of the "Patronage de l'enfance et de l'adolescence" of Heuyer and upon the "Institut national de l'Orientalion Professionnelle," headed by Piéron, Laugier, and Fontégne.—N. Marginean (Cluj, Rumania).

4351. Engelhart, M. D., & Thurstone, T. G. **The Chicago reading tests.** Milwaukee: E. M. Hale, 1939.—The reading tests are designed for the following ranges of school grades: Test A for 1st and 2nd; Test B for 2nd, 3rd, and 4th; Test C for 4th, 5th, and 6th; and Test D for 6th, 7th, and 8th. There are three forms of each test. Reliability and validity are high. Norms and age and grade equivalents are available.—(Courtesy *J. educ. Res.*).

4352. Eydt, A. **Auslese und Ausmerze in der Volksschule.** (Selection and rejection in elementary school.) *Volk u. Rasse*, 1938, 13, 344-351.—Two thirds of the problem children from large families in Saxony are below the average in mental ability, and one tenth are in need of special training. As family size increases, the adaptability to school decreases. In families with seven and more children, 20.7% are in special schools, 36.4% present behavior problems, 59.0% are retarded by at least one grade, and 3.3% exercise a dangerous influence on their classmates.—P. L. Krieger (Leipzig).

4353. Finch, F. H., & Odoroff, M. E. **Sex differences in vocational interests.** *J. educ. Psychol.*, 1939, 30, 151-156.—"The results of the present investigation may be considered as confirming Carter and Strong's conclusion regarding the existence of certain differences between the measured vocational interests of boys and girls of high school age. Furthermore, the fact that the number of occupational keys for which clear-cut sex differences appear at the junior-high-school level is no fewer than the number of such differences occurring among the group from senior high school affords a basis for the tentative conclusion that the interests measured by the Strong blank are, among the type of children represented in the sample studied, well developed prior to age fourteen. If further application of the Strong blank demonstrates this to be true, it would seem desirable to attempt the construction of a measuring instrument which avoids that blank's difficulties of vocabulary and form, in order that growth of interests among much younger children may be studied objectively."—R. M. Bellows (Maryland).

4354. Foster, J. C., & Mattson, M. L. **Nursery school education.** New York: Appleton-Century, 1939. Pp. 342. \$2.50.—The nursery school is briefly defined and its 2-, 3- and 4-year-old pupils

described in terms of abilities and general sequence of development. Learning in the nursery school and the promotion of physical and mental welfare are discussed. A detailed description is given of the nursery school day, including the conducting of free play activities and the establishment of eating, resting, and language habits. Appropriate lists of books, stories, and music for the child's entertainment are given. The nursery school plant, including play equipment, staff, daily programs, and records and reports, is described. The authors discuss the place of the parent in the nursery school and that of the nursery school in the community. Illustrations are plentiful and a list of 120 selected references is appended.—*D. B. Lindsley* (Brown).

4355. Gates, A. I. *Gates reading survey for grades 3 to 10*. New York: Bureau of Publications, Teachers College, Columbia Univ., 1939.—The reading survey is designed to measure four fundamental aspects of reading ability, as follows: knowledge of word-meanings or vocabulary, comprehension, speed of reading, accuracy of comprehending. There are two forms. Intercorrelations average .62 and self-correlations about .90.—(Courtesy *J. educ. Res.*).

4356. Good, C. V. *Graduate study and problems of exceptional children*. *Sch. & Soc.*, 1939, 49, 615-616.—*L. A. Averill* (Worcester State Teachers College).

4357. Griffin, J. D. M. *Appraisal of educational programmes through personality changes*. *Understanding the Child*, 1939, 8, No. 1, 14-16.—*S. A. Kirk* (Milwaukee).

4358. Hagener, C. *Schule als gestaltete Lebenswelt des Kindes*. (The school as the organized life environment of the child.) Hamburg: Hansischer Gildenverl., 1939. Pp. 98. RM. 3.30.—*R. R. Willoughby* (Brown).

4359. Hancock, A. S. *Large-group instruction—a lecture-experiment in reading*. *Sch. Rev.*, 1938, 46, 694-700.—An experimental attempt to increase and improve quality of reading selections used two unselected groups of high school students, one group studying composition for the first semester while the others were given a series of interpretive lectures and periods in which to read in the fields of fiction, poetry, drama, and prose non-fiction. Students having this special course read nearly half again as much as those taking the more traditional approach, and preference was almost unanimously in favor of the experimental method.—*D. Bailey* (Mary Baldwin College).

4360. *Illinois High School Principals' Association. Ways to better high schools; the place of testing in the supervising program*. Urbana: Univ. Illinois, 1938.—*R. R. Willoughby* (Brown).

4361. Johnson, J. T. *The Chicago arithmetic survey tests*. Milwaukee: E. M. Hale, 1939.—The arithmetic tests are designed for the following ranges of school grades: Test A, for grades 3 and 4, includes problems in number meaning, addition, subtraction, multiplication, division, measurement, and reason-

ing; Test B, for grades 5 and 6, is similar except that it excludes number meaning; Test C, for grades 7 and 8, includes problems in fundamental operations, common fractions, decimals, reasoning, and graphs. There are norms for grade placement.—(Courtesy *J. educ. Res.*).

4362. Krathwohl, W. C. *We measure our freshmen*. *Armour Engr. & Alumnus*, 1938, 4 (December), 37-42.—The comprehensive battery of tests used for the purpose of guidance at Armour includes: the American Council on Education psychological examination; Iowa mathematics aptitude test; Iowa silent reading test, advanced form; Inglis vocabulary test; Cooperative Test Service general science test; and tests of vision and hearing. Scores are converted into derived or standard scores and profiles are set up for each student. The manner of use in guidance is illustrated by seven bar-profile charts. Original methods are used in graphic representation of results.—*D. Bailey* (Mary Baldwin College).

4363. Laycock, S. R. *Appraising classroom problems: a diagnostic approach*. *Understanding the Child*, 1939, 8, No. 1, 17-21.—*S. A. Kirk* (Milwaukee).

4364. Main, Z., & Horn, E. A. *Empirically determined grade norms as a factor in the educational maladjustment of the "average" child*. III. The rate of school progress of children in the 90-109 IQ group and some related variables. *J. educ. Res.*, 1939, 32, 561-569.—Statistical study of the school progress of 414 children with IQ's of 90-109 during the first six grades in school indicates that these "average" children require, on the average, an extra six months to complete the work of the first six grades. Of this group only 43% had a progress rate of 1.00 or better.—*S. W. Fernberger* (Pennsylvania).

4365. Manning, F. L. *How accurately can we predict success in college?* *J. Amer. Ass. colleg. Registr.*, 1938, 14, 35-38.—The experience of a small liberal arts college over a period of years was examined for improvement in prediction. Combined with an intelligence test, an English test proved superior to any other single subject. High school rank added to intelligence also proved reliable for predicting students' grades, but any prediction formula is defective in individual cases where illness, indifference, or other factors interfere.—*D. Bailey* (Mary Baldwin College).

4366. Muster, D. *Semnificatia notelor scolare*. (The significance of school marks.) *J. Psihotek.*, 1939, 3, 38-41.—The intercorrelation of school marks given in various school subjects varies from .50 to .60; it is larger in smaller classes. Brief considerations are given concerning these facts; the subjectivity of school marks is pointed out.—*N. Marginean* (Cluj, Rumania).

4367. Nestor, I. M. *Profesiogramme psihologice*. (Psychological "professionograms.") Bucuresti: Biblioteca de Studii Psihologice, 1939. Pp. 15 + 114 graphs. Lei. 300.—A translation, with insignificant changes, of the psychological profiles of 114 voca-

tions elaborated by A. Huth (Psychologische Eignungsprüfungen im Dienste der Berufsberatung, München: Schick, 1928). They have been used by Huth in the office of Vocational Guidance in München and are designed to be used in similar offices connected with the Institute of Psychotechnics of Bucharest. The changes which the author introduces concern the presentation. After he translates the table containing the 114 professions and the degree to which they require the 26 abilities in terms of which the profiles are elaborated, he takes each profession separately and gives its profile on a separate graph.—*N. Marginean* (Cluj, Rumania).

4368. Nestor, I. M. **Rationalizarea examenelor universitare.** (Rational organization of academic examinations.) *J. Psihoteh.*, 1938, 2, 131-139.—The results of an application of educational tests to students in psychology at the University of Bucharest. The correlation between the oral examination and the test is rather satisfactory.—*N. Marginean* (Cluj, Rumania).

4369. Packard, A. G. **Aptitude testing.** *Baltimore Bull. Educ.*, 1938, 16, 90-94.—(*Educ. Abstr.* IV: 361).

4370. Pear, T. H. **The maturing mind.** New York: Nelson, 1939. Pp. 152. \$0.75.—The development of the individual through learning and the achievement of mental maturity are popularly discussed. Adult learning is accorded considerable attention. Chapter headings: the wisdom of being educated; why learn after twenty-five? What do adult learners want? Am I too old to learn? Willingness and unwillingness to learn; acquiring background; the conversation and its delights; differing with others; why not learn to discuss? Education, propaganda, and the adult mind; broadcasting and adult education; the mature personality.—*D. G. Ryans* (William Woods College).

4371. Phillips, M. **The education of emotions.** London: Allen & Unwin, 1937. Pp. 318. 8/6.

4372. Radulescu-Motru, C. **Educatia in scop practic.** (Education in its practical scope.) *J. Psihoteh.*, 1938, 2, 125-130.—Modern schools in general and Rumanian schools in particular are too theoretical. It is necessary to make the education more practical. Proposals are made to effect this change, among which the most important are reduction of curricula, introduction of practical work, expositions, etc.—*N. Marginean* (Cluj, Rumania).

4373. Rice, B. **A new approach to the diagnosis of the mental hygiene problems of the college student.** *J. Amer. Ass. colleg. Registr.*, 1938, 14, 28-34.—This study was an attempt to refine a technique of diagnosis and to demonstrate the need for a preventive approach to mental health in college students, through prepsychotic study and treatment. Ratings of 385 college women by two faculty advisors, the girl's roommate, and herself were made, and the average of the ratings was used to indicate a basis for judging as to the presence or absence of any of the undesirable traits included. Tetrachoric correlations were computed for 57 scale items and

were found high enough to be significant. By Spearman's technique of hierarchical order, eight groups of traits were found, corresponding fairly well to the established manic, schizophrenic, and psychoneurotic tendencies. It was concluded that tendency toward psychosis was evident to some degree in all except 32% of the group, and with the intervention of a precipitating cause some of the 68% would develop psychoses. Attention to these tendencies should be given to avoid actual development of psychoses.—*D. Bailey* (Mary Baldwin College).

4374. Ricker, I. C. **Some observations in a rural school.** *Understanding the Child*, 1939, 8, No. 1, 31-32.—Comments on the gains and losses in reading over the summer months by primary children in a rural school.—*S. A. Kirk* (Milwaukee).

4375. Scarlet, W. **Remedial reading in the New York City high schools.** *High Points*, 1938, Dec., 20, 18-24.—(*Educ. Abstr.* IV: 281).

4376. Seagoe, M. V. **Psychological basis for curriculum trends.** *Curric. J.*, 1938, 9, 309-312.—In addition to seven principles stressed by psychologists in curricular selection and planning, three other issues are considered, namely: the nature of the unit, incidental learning, and the need for drill. Units based on several fields can be justified only if they have a closely related pattern. General incidental learning appears to be slight, and direct teaching of necessary skills appears superior. Where retention is desired through over-learning, drill is necessary, but it is not so essential for appreciation.—*D. Bailey* (Mary Baldwin College).

4377. Simon, T. **Questions actuelles. I. Orientation scolaire.** (Current questions. I. Scholastic orientation.) *Soc. A. Binet (Psychol. Infant Pédag. exp.)*, 1938-1939, No. 3-4, 33-70.—In an address given before a group of psychologists, teachers, and psychotechnicians, Simon included a description of two recent tests which he has recently established: a culture test, which is a group test to be given to subjects from 12 to 20 years of age, and a test of spelling and memory recognition.—*G. Goldman* (Sorbonne).

4378. Sorescu, S. **Organizarea orientării profesionale in Franta.** (Organization of vocational guidance in France.) *J. Psihoteh.*, 1939, 3, 42-47.—*N. Marginean* (Cluj, Rumania).

4379. Stenquist, J. L. **Newer testing services.** *Baltimore Bull. Educ.*, 1938, 16, 81-83.—(*Educ. Abstr.* IV: 364).

4380. Stott, M. B. **Occupational success.** *Occup. Psychol., Lond.*, 1939, 13, 126-140.—Some of the difficulties the vocational psychologist faces when attempting to estimate occupational success are due to the invalidity of the criteria customarily used: "output" is valid only when subjects are in similar occupations; "average number of posts held" is valueless when one post is a preparation for another; "average length of tenure" is an inadequate measure of relative occupational stability; "reasons for leaving post" are vague, contradictory, and difficult to

obtain; "employers' reports" are invalidated because of the absence of standards of comparison, and often cannot be obtained; and "satisfaction" is more often interpreted as concerned with the firm or foreman than with the type of work, and is quite often in terms of level of compensation. The invalidity of the various criteria varies in different studies. Two groups, one of 1200 and another of 1310, equally divided into male and female, experimental and control, and followed up from one to six years after guidance had been given, form the basis on which the criticisms of the customary criteria rest.—*H. Moore* (Mt. Holyoke).

4381. **Stretch, L. B.** *The curriculum and the child.* Minneapolis: Educational Publishers, 1939. Pp. xiv + 503. \$2.25.—This is a combined presentation of teaching procedures and viewpoints concerning the curriculum and principles of education. It is written for the elementary-school teacher and for superintendents, supervisors, principals, and teachers who are constructing and revising curricula, as well as for college instructors directing students in the professional study of the elementary curriculum.—*P.S. de Q. Cabot* (Simmons).

4382. **Thomson, W. A.** *Eleven years after graduation.* *Occupations*, 1939, 17, 709-714.—Data are presented from 83 graduates in the class of 1926 from Minnesota, Indiana, and Illinois, obtained by questionnaires in 1937. The paper treats salaries, vital statistics, vocational histories, job satisfaction, success, and 5 items of personal history. It was found that salary was related to father's occupational level, to self-support during college, and to extra-curricular activities. Both salary and occupational rank were related to amount of serious reading and to participation in organized activities before college.—*H. Schlosberg* (Brown).

4383. **Thorndike, E. L.** *Education as cause and as symptom.* (Kappa Delta Pi lecture ser.) New York: Macmillan, 1939. Pp. 96. \$1.25.—*R. R. Willoughby* (Brown).

4384. **Traxler, A. E.** *Problems of group remedial reading in the secondary school.* *High Points*, 1938, Dec., 20, 5-18.—(*Educ. Abstr.* IV: 282).

4385. [Various.] *Seeing skills and concepts in their proper perspective.* *Childh. Educ.*, 1939, 15, 195-227.—A group of leaders in the field of kindergarten-primary education discuss development of skills and concepts in the school and from the environment. Miss Hildreth contrasts the unmeaningful and detached approach to skills of reading, writing and computing in the traditional school's approach with the modern plan of instruction, which attempts not only to teach the skills but to give meaning to them, and to stimulate the child to practice and achievement. The important role of field trips, and audio-visual supplementary aids such as movies, museum collections, etc., are discussed by Miss Shearer. Number learning, as revealed by study of cases and by experimentation on children from 2½ to 6 years of age, is the subject of Miss MacLatchy's contribution. Her conclusion

is that "there is a direct relation between the time of attempted formal understanding and the early, inadequate number understanding." A section by Miss Harrison outlines the instructional tasks in development of thinking in reading. The use of social and practical situations in number learning, discussed by Miss Wilson, and the value of small interest groups as a means to stimulation of natural language expression, by Miss Baker, conclude the discussion.—*D. Bailey* (Mary Baldwin College).

4386. **Wilson, F. T., Burke, A., & Flemming, C. W.** *Sex differences in beginning reading in a progressive school.* *J. educ. Res.*, 1939, 32, 570-582.—Study of 447 children at the Horace Mann School, New York, over a four-year period. The Gates primary reading tests, Stanford achievement tests, and Progressive achievement tests were employed. A statistical analysis of the results indicates that boys are more apt to make letter reversals and errors in learning letter and word forms, and that girls make more rapid progress in learning to read. The authors believe that this more rapid progress is probably due to learning interests and dispositions rather than to more subtle sex differences such as mental qualities characteristic of femininity.—*S. W. Fernberger* (Pennsylvania).

4387. **Witty, P. A., Skinner, C. E., & others.** *Mental hygiene in education.* New York: Farrar & Rinehart, 1939. Pp. x + 539. \$2.75.—19 authors, each an expert in a specific phase of the growth of children, have contributed to this symposium, which "is a systematic account of trends in the fields of mental hygiene and child development." Part I deals with "The Mental Hygiene of the Developing Personality" from the preschool level to adulthood; in Part II there is a discussion of "Mental Hygiene Applied to Special Problems" with reference to the topics of sensory hygiene, personality disorders, personality development in the feeble-minded and the gifted, conduct disorders and delinquency, language and speech acquisitions in relation to personality development, the role of the teacher, and educational diagnosis and remedial instruction. Each of the 18 chapters concludes with a list of questions and reading references.—*P.S. de Q. Cabot* (Simmons).

4388. **Word, A. H., & Davis, R. A.** *Acquisition and retention of factual information in seventh-grade general science during a semester of eighteen weeks.* *J. educ. Psychol.*, 1939, 30, 116-125.—Subject matter for a science course was divided into 9 units, and tests were given for acquisition and retention at 2-week intervals throughout the course. Wide individual differences were revealed in both acquisition and retention scores; losses were found in retention scores when these were compared with acquisition scores in the case of some of the subject-matter units, whereas gains were found in the case of others. Retention was also studied over varying intervals, and it was concluded that "Since the degree of initial mastery does not appear to affect the amount retained during varying intervals, the

nature of the material again seems to be the most plausible factor conditioning these results."—*R. M. Bellows* (Maryland).

4389. **Wrenn, C. G.** Recent research on counseling. *Occupations*, 1939, 17, 694-698.—This review touches on the following topics: tests, inventories, case histories, interviews and their therapeutic value, and the evaluation of counseling. Continued research on these topics is essential. Specific problems are suggested. There is a bibliography of 18 titles.—*H. Schlossberg* (Brown).

4390. **Wrightstone, J. W.** Measuring diverse objectives and achievement in Latin teaching. *Classical J.*, 1938, 34, 155-165.—65 pairs of students, equated as to IQ, chronological age, sex, and previous semesters of Latin, but taught Latin by different methods by teachers given equivalent ratings by supervisors, were compared as to their success in standardized Latin tests of reading, vocabulary, and grammar. The "new type" instruction had emphasized reading Latin as Latin rather than translating it into English, while the "old type" is considered as the traditional method. Students were compared after taking two, four, and six semesters. The general conclusions drawn were that, throughout, the total scores favor the "new type" instruction, though differences decrease with increase in the number of semesters of study. The three aspects tested had a low correlation with each other and with intelligence.—*D. Bailey* (Mary Baldwin College).

4391. **Young, F.** Some factors affecting teaching efficiency. *J. educ. Res.*, 1939, 32, 649-652.—Study of principals' ratings of the efficiency of 1521 Texas high school teachers. The results indicate that efficiency is determined by a number of measurable factors such as preparation and experience, but that the perfect teacher must "also possess the other qualities which are too subtle for accurate measurement."—*S. W. Fernberger* (Pennsylvania).

[See also abstracts 3992, 4022, 4025, 4064, 4068, 4075, 4211, 4224, 4246, 4274, 4296, 4300, 4401, 4409, 4416, 4421.]

MENTAL TESTS

4392. **Burton, W. H.** Some notes on validity. *J. educ. Res.*, 1939, 32, 605-607.—Definitions and analysis of the concept of validity in non-statistical terms.—*S. W. Fernberger* (Pennsylvania).

4393. **Kerr, M.** The validity of the mosaic test. *Amer. J. Orthopsychiat.*, 1939, 9, 232-236.—The mosaic test, invented by Margaret Lowenfeld, was employed in several matching experiments and found to be valid as a diagnostic instrument in clinical practice.—*R. E. Perl* (New York City).

4394. **Peters, C. C.** Increasing reliability in controlled experiments. *J. educ. Psychol.*, 1939, 30, 143-150.—Data are cited in which standard error ratios for unit tests averaged about 2 or 2.5, whereas the ratios when the tests were summed ran up to 10 or higher. It is shown by statistical considerations that large increases in critical ratios would be ex-

pected to result when subtests which measure control and experimental group performances are summed, thereby yielding more reliable measures. It is also shown that differences between measured outcomes are likely to be attenuated because of lack of validity of the measuring devices.—*R. M. Bellows* (Maryland).

4395. **Westerbeek, E.** Over de suggestieproef in het testsysteem van Bühler-Hetzer. (The test for suggestibility in the testing system of Bühler-Hetzer.) *Ned. Tijdschr. Psychol.*, 1939, 6, 525-545.—The second test for the seventh year of life in the Bühler-Hetzer series attempts to determine the degree of certainty with which the child has made his selections in the first test. The author points out that a merely quantitative result tells little about the child, but that a qualitative evaluation may be most significant. The child's reaction in this particular item may be atypical and quite different from his usual behavior. This reaction is strongly influenced by the tone of voice and attitude of the experimenter, who should attempt to control this variable factor in the test situation. In the interpretation the child's behavior during other tests in the series should be taken into consideration, and other tests for suggestibility should be given before conclusions are drawn from the results of this item.—*H. Beaumont* (Kentucky).

CHILDHOOD AND ADOLESCENCE

4396. **Cameron, W. J.** A study of early adolescent personality. *Progr. Educ.*, 1938, 15, 553-563.—An improved method of understanding social needs and interests of early adolescence was sought through systematic observation and recording of social behavior taking place in the informal setting of a clubhouse. Emotionally charged conflicts, individual differences in potentiality for social leadership, and larger developmental sequences were particular points observed. Conclusions were that the observed superficial methods of expressing social urges were adopted for lack of better available alternatives, and academic provision for improvement is urged.—*D. Bailey* (Mary Baldwin College).

4397. **Eisner, E.** Phantasy in maladjusted children as observed in three cases at the Southard School. *Bull. Menninger Clin.*, 1939, 3, 27-34.—Phantasy is defined as "an imaginative expression of the emotional life, conscious for the most part, but characterized by a symbolic investiture and a cathartic function." Several phantasies of three maladjusted children are presented. The symbolic investiture of the phantasies themselves, as well as their erotic (constructive) and aggressive (destructive) elements are suggested. Phantasies are integral expressions of the personality. There is a functional correspondence between phantasy and reality.—*W. A. Varvel* (Kansas).

4398. **Hawke, W. A.** A study of the significance of convalescence. *Understanding the Child*, 1939, 8, No. 1, 22-26.—*S. A. Kirk* (Milwaukee).

4399. Jersild, C. Overcoming fear. *Parents' Mag.*, 1938, 13, No. 12, 22; 55 ff.—(*Child Developm. Abstr.* XIII: 647).

4400. Kästner, A. Goethes Bild der Kindheit. (Goethe's picture of childhood.) *Z. pädag. Psychol.*, 1939, 40, 100-107.—An allegorical and metaphysical interpretation of Goethe's poem *Zueignung* (Dedication; a walk on a spring morning).—*M. E. Morse* (Baltimore).

4401. Kramer, I. The reading preferences of elementary and high school pupils. *Cath. educ. Rev.*, 1939, 37, 310-325.—The influence of age, intelligence, sex, and environment on reading and reading interests.—*W. L. Wilkins* (Springfield Junior College).

4402. Levy, D. M. Sibling rivalry studies in children of primitive groups. *Amer. J. Orthopsychiat.*, 1939, 9, 205-215.—This is an account of some sibling rivalry experiments recently conducted in the Coban district of Guatemala and with Pilaga Indian children in the Argentine. The sibling rivalry situation is universal among people regardless of their various cultural forms, and arises directly out of biological behavior. Responses common to all children are apparent, but in each case study there are responses explainable only in terms of individual experience.—*R. E. Perl* (New York City).

4403. Line, W. Appraisal by the child. *Understanding the Child*, 1939, 8, No. 1, 10-13.—*S. A. Kirk* (Milwaukee).

4404. Macfarlane, J. W. Family influences on children's personality development. *Childh. Educ.*, 1938, 15, 55-59.—(*Child Developm. Abstr.* XIII: 220).

4405. Marica, G. E. Conducerea la copii. (Leadership in children.) *Rev. Psihol.*, 1938, 1, 417-437.—Before 5 years there can hardly be any leadership; from 5 to 8 it remains in a rather undeveloped form, and becomes better defined after 9 years. At puberty children are more decided, better developed, and good organizers. Adolescence brings a regression in leadership; organized sociability loses its defined character and children become more solitary. Leadership takes different forms in girls and boys. It is more accentuated in the case of boys. Girls are rather equal among themselves and are less directed by any individual. Leadership by children is less defined than in adults.—*N. Marginean* (Cluj, Rumania).

4406. Marinescu, E. R. Lectura fetelor. (What girls read.) *Anal. Psihol.*, 1938, 5, 102-134.—A questionnaire concerning reading was distributed to 1700 girls from 9 to 20 years old. The factors which determine the choice of a book are family, social environment, and school. Besides these external factors there are certain internal ones, depending upon the personality structure. At first the girls are attracted toward books full of fantasy, while later they prefer books with psychological analysis of intimate life. It is possible to distinguish three epochs: (1) an epoch of adventures, from 9 to 13 years; (2) an epoch of novels and stories, from 13

to 15 years; and (3) an epoch of long novels and scientific reading, from 16 to 20 years.—*N. Marginean* (Cluj, Rumania).

4407. Martin, H. Das "Erlesen" einer Geschichte bei geschlechts- und altersverschiedenen Kinder der Volksschule. (Rereading of a story by public school children of both sexes and different ages.) *Z. pädag. Psychol.*, 1939, 40, 75-85.—10 boys and 10 girls from each grade between the 2nd and 7th reread to the observer and reproduced the content of material which had been read to them. The results, and hence the sex differences, depended on the child's stage of general development.—*M. E. Morse* (Baltimore).

4408. Mott, S. M. The growth of an abstract concept. *Child Developm.*, 1939, 10, 21-25.—Drawings were made by 2 groups of children, one from New York composed of 35 children of ages 4-7 to 6-9 and one from Illinois made up of 23 children of ages 5-6 to 7-6. The groups drew 2 pictures every 2 weeks, first of a man (abstract) and then of a policeman, farmer, or cowboy. The 1212 drawings were scored by three judges according to the Goodenough scale. Almost half of the pictures of the man scored higher than the subsequently drawn picture, and only once out of three times was the second drawing higher in score than that of the man. The second pictures had identifying features in them which were not scored on the Goodenough scale and in which the child became interested to the neglect of the rest of the drawing. There was a greater carry-over of items from the concrete to the abstract drawing than in the reverse case. There were more identifying features for the policeman and farmer than for the cowboy.—*C. N. Cofer* (Brown).

4409. Northway, M. L. Appraisal of children at camp. *Understanding the Child*, 1939, 8, No. 1, 6-9.—*S. A. Kirk* (Milwaukee).

4410. Rainey, H. P., Brandon, A. L., Chambers, M. M., Harley, D. L., Moore, H. H., & Melvin, B. L. How fare American youth? New York: Appleton-Century, 1937. Pp. ix + 186. \$1.50.

4411. Reichenberg, W. An experimental investigation on the effect of gratification upon effort and orientation to reality. *Amer. J. Orthopsychiat.*, 1939, 9, 186-205.—This is an experiment designed to demonstrate that children do better work under the influence of a joyful emotion. The task was making lines with a pencil on paper. The situation designed to create joy was the solving of a puzzle box with many movable attachments and the possession of a "treasure" that was stored within. The subjects for this experiment were 33 children 8 to 10 years old. The procedure was as follows: the child makes strokes on paper until he is satiated and refuses to do more; then a rest of 10 or 12 minutes is given, which the control group devotes to some neutral occupation, and during which the children in the experimental group solve the treasure box; then the child is put back to the work with which he was previously satiated. In every case but one, gratifica-

tion seemed to increase acceptance of and devotion to the task externally. Theoretical interpretations are made.—*R. E. Perl* (New York City).

4412. Rosander, A. C. The economic stratification of youth and its social consequences. *J. educ. Res.*, 1939, 32, 592-604.—Analysis of the results of youth studies, made by the U. S. Bureau of Labor Statistics in Pennsylvania, Maryland, and Muncie, Ind., of 6016 cases who gave information relative to the socio-economic status of the home and the occupation of the father. The results indicate that there is economic stratification for this group no matter from which geographical section the results were obtained. The tendency was more pronounced among the male than the female youth, but it existed even within such a selected group as employed high school graduates. These results indicate that there is economic selection for the high school and even greater selection for college.—*S. W. Fernberger* (Pennsylvania).

4413. Schmeing, K. Der Sinn der Reifungsstufen. Erbgang und Werdegang der menschliche Jugend. (The sense of stages of maturation. The hereditary and developmental course of human adolescence.) Leipzig: Barth, 1939. Pp. 115. RM. 5.50.

4414. Skodak, M. Children in foster homes: a study of mental development. *Univ. Ia Stud. Child Welf.*, 1939, 16, No. 1. Pp. 156.—Two groups of children from true-family backgrounds inferior in educational achievement, occupational level, intelligence, and socio-economic status were placed in foster homes above average and superior in these characteristics. One group of 154 children was placed in early infancy, from 0 to 6 months of age. The other group of 65 children was placed between the ages of two and five and one-half years of age. The latter group came from more inferior true-family backgrounds than the former and were placed in foster homes somewhat less superior. The mental level of the foster children was above the average of the general population and above the level of expectation judging from the data available from the true parents. At one year of age the differences in mental levels of the children on the basis of the occupational classifications of the foster parents were negligible, but at the older ages they were marked. Correlations between children's mental development and the education of true and foster parents varied from zero to .33. Children whose fathers came from the lowest occupational classification, or whose true-family background was extremely poor with one parent known to be mentally defective, showed the same pattern of mental development as that of the total group of foster children. Children placed at ages two to five and one-half years gained in mean IQ with improved environmental conditions and continued to gain with cumulative residence in the foster environment.—*B. Wellman* (Iowa).

4415. Springer, N. N. The influence of general social status on school children's behavior. *J. educ. Res.*, 1939, 32, 583-591.—In order to determine

whether there are behavior differences in groups of children from different social levels, teachers' ratings were obtained on four schedules of the Haggerty-Olson-Wickman behavior rating scale, intelligence ratings by the Goodenough drawing-of-a-man intelligence test, and occupational status of the children's fathers on the Barr scale. A group of 415 boys and girls from a slum neighborhood in New York City were compared with 448 children from middle-class families from a good residential neighborhood. The results indicate a significantly greater number of behavior problems in the group from the poor neighborhood and a decidedly greater number of behavior problems for boys as compared with girls in both groups. Low and insignificant correlations were found in both groups between the behavior schedules and chronological age, intelligence, and occupational status of the fathers.—*S. W. Fernberger* (Pennsylvania).

4416. Stoica, I. C. Contributii la metoda stiintifica de cunoastere a individualitatii scolarii in liceu. (Contributions to the scientific diagnosis of children's individuality in school.) *Anal. Psihol.*, 1938, 5, 135-155.—There were applied tests for intelligence, direction of intelligence, feeble-mindedness, average intelligence of a class, etc. The psychological profiles made from the tests proved to be very helpful in the understanding of the children's individuality. The same can be said about various diagrams concerning different classes.—*N. Marginean* (Cluj, Rumania).

4417. Stollerman, M. Cornerstones in child guidance. Providence, R. I.: Oxford Press, 1938. Pp. 80.—(*Child Developm. Abstr.* XIII: 196).

4418. Stürup, G. K. Om börnepsykiatri. II. Dementia paralytica infantilis et juvenilis. (Child psychiatry. II. Infantile and juvenile dementia paralytica.) *Ugeskr. Laeg.*, 1939, 101, 245-247.—Two conditions are particularly puzzling to those who deal with "difficult" children. One is the relatively large number of bright ones who, because of peculiarities, disturbing influence, or lack of attention in school, or because of naughtiness at home, are judged to be mentally defective; second, one finds a certain type of children who at first do well in school subjects and social adjustment, yet later appear to "run down" and are not granted promotion. One of the causes for such conditions is infantile paresis, of which two classical examples are given. Some form of neurosyphilis develops in about 10% of all syphilitic children, and juvenile paresis constitutes about 2% of all cases of dementia paralytica. This disease usually becomes apparent between the ages of 9 and 16; it has been observed as early as 4 years, and rarely occurs after the 25th year. Two initial phases are: (1) the vaguely slow development of an already physically and mentally retarded child; (2) an acute incidence in a heretofore normal appearing child. The psychological symptoms show a progressive, though uneven, failure to grasp any ideas and eventual loss of acquired knowledge.—*N. J. VanSteenberg* (Utah).

4419. Szuman, S. *Rozwój myślenia u dzieci w wieku szkolnym.* (The development of thinking among children of school age.) Lwów-Warsaw: Książnica-Atlas, 1938. Pp. 250.—On the basis of investigations made with the aid of tests, the author tries to discover what qualitative changes occur in the development of children during the school age. For this purpose he analyzes successively the following mental activities: (1) comparison, abstraction, and analysis; (2) ordering thought; (3) generalization; (4) symbolic thinking; (5) verification. In every case he puts special emphasis on an analysis of mistakes. The chief conclusion is that the methods of children's thinking depend on the degree of their intelligence. At the end of the book the author develops his own theory of intelligence and proposes to distinguish intelligence as potential capacity from intelligence as effective knowledge.—S. Blachowski (Poznań).

4420. Templin, M., & Steer, M. D. *Studies of growth of speech of pre-school children.* *J. Speech Disorders*, 1939, 4, 71-77.—The report covers the first two years of work on a project designed to analyze the growth of speech in children. The entire study will cover the development of articulation, voice quality, and rhythm in the preschool child. The present paper deals with articulation development; the data were obtained from 51 children between the ages of 2 and 5 years. Pictures were presented to the children as stimuli designed to elicit the desired speech sounds. The responses were recorded by the experimenter. None of the children were able to utter all consonants correctly; a few were able to pronounce all vowels correctly. Grouping the consonants in five categories (nasals, plosives, semi-vowels, fricatives, and combinations), the authors found that the frequency of correct enunciation was in the order given. The frequency with which other sounds were substituted for the correct ones was found to be in the inverse order. Further reports on the study are planned.—C. V. Hudgins (Clarke School).

4421. Ter Keurst, A. J. *The acceptance of superstitious beliefs among secondary school pupils.* *J. educ. Res.*, 1939, 32, 673-685.—A list of 92 superstitious beliefs was checked by 663 white and colored boys and girls from grades 7 to 10. The items and the frequencies of acceptance by the different groups and grades are given. The most prevalent superstitions referred to the animistic role of Nature, supernatural manifestations, and deterministic viewpoints of life. The incidence of acceptance did not decline with chronological or scholastic advances. There was no significant difference between the sex groups. Some significant qualitative and quantitative differences were found between the white and the colored children.—S. W. Fernberger (Pennsylvania).

4422. Trefzer, C. *Hungerstreik im Kindesalter. Ein Beitrag zur Frage der kindliche Anorexie, mit besondere Berücksichtigung der Präpubertät.* (Hunger strikes in childhood. A contribution to the problem of anorexia in children, with special reference to the

prepubertal period.) Zürich: Buchdr. Fluntern, 1939. Pp. 32.

4423. Van Alstyne, D., & Hattwick, L. A. *A follow-up study of the behavior of nursery-school children.* *Child Developm.*, 1939, 10, 43-72.—Behavior rating scales and behavior problem sheets, questionnaires concerning physical and social histories, and other reports made up the material from which the data of this study were obtained. The informants were nursery and grade-school teachers, parents, and special observers. Samples of some of the scales are included, and data on their reliability and other features are reported. 165 children, formerly in the Winnetka nursery school, were the subjects. The follow-up children were divided into two groups, one showing good adjustment and one a less effective adjustment in post-nursery-school life. The previous nursery-school behavior of the two groups was compared. The less adjusted group had shown more indications of poor adjustment than had the well adjusted group. Comparisons are extensively reported. Data on the course through the elementary school of problems appearing in the nursery-school period are presented. The former nursery-school group is compared to the general school population. The study shows that "the nursery school makes for social adaptability, independence, self-assertiveness, self-reliance, and interest in environment" and "for better emotional adjustment and leadership."—C. N. Cofer (Brown).

4424. Witty, P. A., & Kopel, D. *The dreams and wishes of elementary-school children.* *J. educ. Psychol.*, 1939, 30, 199-205.—After analysis of the responses of public-school boys and girls ranging in age from 5 to 14 years, who were asked what they would wish for if their wishes might come true, it was suggested that guidance of atypical children may be facilitated by knowing their wishes. 16% of a group of 1757 boys and 1647 girls reported that they never dream. From analysis of the reported dreams 27 dream categories were set up. The significance of dreams in child study is "frequently over-emphasized."—R. M. Bellows (Maryland).

4425. Zissulescu, S. *Fantazia copilului.* (The child's fantasy.) *Anal. Psihol.*, 1938, 5, 49-60.—Imagination plays an important role in the life of children. It begins at the age of 2 years, and develops intensively from 3 to 6 years, being mainly animistic in its nature. It grows later, from 6 to 10 years, but its manifestations become influenced by education. The main characters of fantasy in children are: unusual speed in the formation of new structures, instability, exaggeration, preference for images involving horror, excitation, surprise, etc., non-temporality, lack of any critical sense, which characterizes so much the imagination of adults.—N. Marginean (Cluj, Rumania).

[See also abstracts 3976, 4067, 4069, 4133, 4137, 4142, 4143, 4151, 4154, 4168, 4169, 4171, 4180, 4219, 4222, 4233, 4246, 4257, 4271, 4283, 4353, 4358.]

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